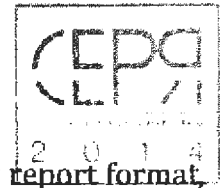
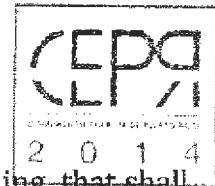


## List of Commission Directives

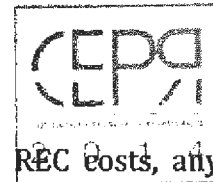
1. PREPA shall use the Modified DSCR ratemaking model for purposes of determining PREPA's base rate revenue requirement. This requirement shall apply for FY2017, and for future fiscal years until the Commission finds that PREPA has access to external debt financing on reasonable terms. Once PREPA has regained access to the capital markets on reasonable terms, the Commission will require PREPA to use the DSCR-based ratemaking methodology, under which capital expenditures incurred in a particular year are recovered ratably over the life of the equipment or asset funded by those expenditures.
2. While using the Modified DSCR approach, PREPA shall account for the ratepayer funding of PREPA's capital expenditures as contribution in aid of construction.
3. Operating and maintenance (O&M) expenses include standard repairs and maintenance required to keep an asset in operational condition. These types of repairs shall be accounted for in the period incurred—i.e., expensed in a maintenance category. This category shall include repairs that may last more than a year, but shorter than a full maintenance cycle.
4. PREPA has not properly maintained its generation facilities in FY2015 or FY2016. PREPA shall increase its FY2017 Generation Expense of \$9.680 million for Labor and \$4.495 for non-Labor, for a total FY2017 Generation Expense increase of \$14.175 million.
5. PREPA shall reclassify the contracts listed in Attachment 3, page 2-3, totaling \$16 million from Capital Expenditure to Generation Expense.
6. PREPA has not properly maintained its transmission facilities in FY2015 or FY2016. PREPA shall increase its FY2017 Transmission Expense of \$3.330 million for Labor and \$479,000 for non-Labor, for a total FY2017 Transmission Expense increase of \$3.809 million.
7. PREPA has not properly maintained its distribution facilities. PREPA shall increase its FY2017 Distribution Expense by \$16.115 million for Labor and \$2.372 million for non-Labor, for a total FY2017 Distribution Expense increase of \$18.487 million.
8. There shall be no change to PREPA's proposed FY2017 customer service amount.
9. The revenue requirement for bad debt expense shall be \$97.384 million, resulting from multiplying PREPA's estimated uncollectibles rate of 2.97% by the full amount of PREPA's proposed expenses (as adjusted by the Commission).
10. PREPA shall decrease A&G labor expense by \$17.057 million.



11. PREPA shall develop and submit to the Commission a revised monthly report format, providing for greater detail on PREPA's operational budgets, organized by functional area.
12. PREPA shall provide detailed information on the spending within the "miscellaneous" non-labor segment of the Administrative and General functional area. Such information shall distinguish between funds spent to date and funds not yet spent.
13. PREPA shall account for fines and penalties in the proper account; specifically, FERC account 426.3.
14. PREPA shall verify that it has not included in its proposed revenue requirement any amounts for fines and penalties.
15. PREPA shall submit to the Commission a full explanation of the causes of fines and penalties from FY2013 to the present, including the names and titles of specific individuals whose actions or inactions contributed to the violations that triggered the penalties.
16. If PREPA incurs fines and penalties for FY2017 or future years, it shall explain to the Commission the nature of these costs and the specific individuals responsible for the actions or inactions causing the fines or penalties. PREPA also shall submit to the Commission a plan for complying with all rules so as to avoid future fines and penalties.
17. PREPA shall continue its policy, per the Consent Decree discussed in its FY2014 audited financial statement, of paying the stipulated penalty in advance to benefit from a 50% discount.
18. PREPA shall provide updates concerning the appraised value of PREPA's unused property (i.e., property not needed to provide utility service), as well as PREPA's plans for maximizing the value of such properties.
19. PREPA shall adjust its monthly report format to list monthly and year-to-date actual spending and budgeted values by labor and non-labor expenses in the same functional areas used herein. These reports shall include the total annual budgets and percent of budgets spent in the past month and year-to-date.
20. PREPA shall prepare a report, to be submitted with its next rate case filing, regarding its use (or lack thereof) of the additional \$19.4 million of operational expenses allowed by the Commission (per Attachment 3, page 6) and the effect of that spending on its system.
21. PREPA shall continue to record its monthly operations spending by directorate. When PREPA reallocates funds between directorates, it shall memorialize and justify such reallocations in written form.

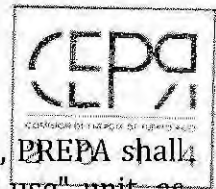


22. PREPA shall prepare a report, to be submitted with its next rate case filing, that shall include its as-approved internal operations expense budget by directorate, its actual monthly operations spending by directorate, and a listing of these memorialized reallocations and the justifications thereof.
23. PREPA shall increase its FY2017 fuels budget (and its revenue requirement) by \$461,305,000, for a total FY2017 fuel budget of \$1,117,273,000.
24. As presented in its filing on Schedule A-6, PREPA proposed to include the following costs in the Fuel Adjustor: fuels (residual, distillate, natural gas, propane, additives), transportation, inspection, laboratories, storage, handling, delay, taxes, and hedging. PREPA has not incurred Fuel Expense for Additives in the last three fiscal years through FY2016. Nor has it incurred expense for Delays or Fuel Hedging in the last two fiscal years (FY2015 and FY2016). Before incurring such costs in the future, PREPA shall submit to the Commission a request for approval, containing the proposed amount and a justification, and await approval. All other categories of Fuel Expense proposed by PREPA shall be included in its revenue requirement.
25. In the upcoming performance proceeding, the Commission will require PREPA to recommend to the Commission at least three firms to conduct a management performance review specifically relating to fuel purchase costs. These firms may be the same firms recommended for the purchased power review discussed below. The Commission will select one firm, which shall contract with PREPA to conduct the review under specifications established by the Commission. Such review shall contain, without limitation, a recommendation regarding procedures for periodic audits of PREPA's fuel procurement, to ensure that such costs are reasonable and accounted for properly.
26. PREPA shall prepare fuel price forecasts at least semi-annually, submit them to the Commission and post them on its web site.
27. There are no adjustments to PREPA's projected FY2017 Purchased Power Expense.
28. In the upcoming performance proceeding, the Commission will require PREPA to recommend to the Commission at least three firms to conduct a management performance review specifically relating to purchased power. These firms may be the same firms recommended for the fuel cost review. The Commission will select one firm, which shall contract with PREPA to conduct the review under specifications established by the Commission. Such review shall contain, without limitation, a recommendation regarding procedures for periodic audits of PREPA's power purchases, to ensure that such costs are reasonable and accounted for properly.
29. Consistent with the requirement in our IRP Order, PREPA shall establish and update semiannually a database of its renewable energy contracts, for all projects whether or not operational. This database shall include the names, owners, contract numbers,



initial energy costs, current energy costs, initial REC costs, current REC costs, any relevant escalators, and expected and actual on-line dates. The format used in response to CEPR-AH-03-02 is acceptable but not binding.

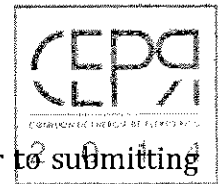
30. The FY2017 revenue requirement shall include the full proposed capital spending at Aguirre, Costa Sur 5 & 6, Palo Seco, and San Juan Steam Plants, as well as the \$600,000 FY2017 improvements at Mayagüez.
31. PREPA shall remove the maintenance contract at San Juan CC from the capital budget and reassigned it as an annual maintenance expense, a reassignment of \$12 million in FY2017 from capital to O&M. PREPA shall remove the cost of the Cambalache maintenance contract from the capital budget and reassign it as an annual maintenance expense—a reassignment of \$4 million in FY2017 from capital to O&M. Attachment 1 shows increased PREPA's Generation Expense by \$16 million, as discussed above.
32. PREPA shall track capital expenses associated with each generating unit designated as "limited use." Such tracking shall be performed for each individual unit. To the extent capital expenditures at a plant site are not separable by unit, PREPA shall associate those expenditures in the tracking record by the units that benefit from the capital or, if applicable, designate an expenditure as "whole plant." In addition to, or as part of this tracking, PREPA shall:
  - a. submit periodic reports on capital projects at Palo Seco 1 & 2, regardless of whether these units are designated "limited use."
  - b. submit periodic reports on capital projects at San Juan 7-10, regardless of whether these units are deemed "limited use."
  - c. submit periodic reports on capital projects at Costa Sur 3 & 4, regardless of whether these units are deemed "limited use."
33. PREPA shall submit strategic plans for the San Juan and Palo Seco steam plants, including the following elements, at a minimum: maintenance plan, MATS compliance plan, and an investment plan for maintaining or retiring San Juan 7-10 and Palo Seco 1 & 2. These plans shall be informed by a reliability study, assessing what strains are placed on the generation and transmission system in the presence or absence of the San Juan or the Palo Seco steam units.
34. PREPA's long-term modeling, including for integrated resource planning, shall consistently assess whether each generating unit designated as "limited use" is available for reliability purposes; and if not, assess the value of maintaining units that neither contribute to peak purposes nor provide energy to the system.



35. In its next submission within the integrated resource planning process, PREPA shall assess the economic value to ratepayers of maintaining each "limited use" unit, as compared to retiring such unit.
36. In the upcoming performance proceeding, the Commission shall consider whether to require PREPA submit to the Commission at least three qualified consultants, one of which the Commission will select and retain, to:
- a. examine the maintenance contract at San Juan combined cycle plants and the performance of MHPS-PR to determine if the contractor is meeting performance expectations for maintenance service.
  - b. examine the Cambalache contract and the performance of Alstom to determine if the contractor is meeting performance expectations for maintenance service at Cambalache.
37. PREPA shall submit for Commission approval, prior to its execution, any long-term contract with service providers with a potential net present value of \$25 million or higher.
38. PREPA shall submit a summary of the expenditures necessitated by the fire and outage occurring in September 2016.
39. Consistent with the IRP Order, PREPA shall limit spending on AOGP to \$15 million, reducing FY2017 revenue requirements by \$41,340,000.
40. PREPA shall not sign a Limited Notice to Proceed or a Final Notice to Proceed at AOGP until it has submitted, and the Commission has approved, the AOGP Economic Analysis; or until the Commission resolves the Reconsideration under review. PREPA shall make no other commitments to incur future costs relating to AOGP without submitting a request and documentation to the Commission. If the Commission approves AOGP, PREPA may request an increase in the revenue requirement.
41. The Commission recognizes, as the Fisher-Horowitz Report says, that "[s]talling projects, cancelling vendors, or missing contractual deadlines could result in increased costs, damages, or potential legal actions by vendors." PREPA shall alert the Commission promptly—and factually—if such possibilities become imminent realities.
42. If and when PREPA needs to incur additional costs for "alternative investments" (i.e., alternatives to AOGP), it shall first seek and obtain Commission approval.
43. Based on the information provided by PREPA and its examination and assessment in the Fisher-Horowitz Report, as well as the discussion at the technical hearing, the Commission approves the full FY2017 transmission system capital budget as requested by PREPA.

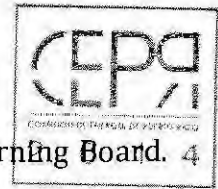


44. The Commission approves the full FY2017 distribution system capital budget as requested by PREPA. PREPA shall continue acquiring advanced meter reading ("AMR") meters unless a specific application requires advanced meter infrastructure ("AMI"). If PREPA wishes to acquire smart meters above the 30,000 already acquired without a specific technical application need, it shall submit a detailed business case describing and evaluating the costs and benefits of smart meter deployment. The business case should provide detail of the scope, scale and schedule of deployment, including but not limited to technological and financial issues. It should take into account the need for staff and consumer education for effective meter use.
45. PREPA should not commit to any greater expenditure than what is approved here, without approval of the Commission.
46. For future purchases of meters, PREPA shall use competitive bidding.
47. PREPA shall provide to the Commission a report describing its efforts to bill and collect from municipalities in regard to the consumption of electricity at for-profit businesses affiliated with such municipalities.
48. PREPA shall include in its FY2017 revenue requirement \$314 million for debt service principal and interest.
49. PREPA shall include a debt service coverage amount of approximately \$126 million, reflecting a debt service coverage ratio of 1.40 applied to the \$314 million in debt service.
50. PREPA shall inform the Commission monthly on its progress regarding financial restructuring, including its efforts to obtain an investment grade credit rating for the new debt to be issued by PREPARC, and its meetings with members of the PROMESA Oversight Board. PREPA shall submit to the Commission copies of any formal presentations that it (or PREPARC) makes to credit rating agencies or to the PROMESA Oversight Board.
51. PREPA shall use all reasonable efforts to persuade the PROMESA Oversight Board to provide the maximum debt service relief available, including demonstrating to that Board how the savings will benefit the Commonwealth's economy and its electricity consumers.
52. PREPA shall reflect a FY2017 amount of \$38.925 million in Other Income.
53. In future years, PREPA shall detail the basis for amounts included as Other Income.
54. PREPA shall develop a single, reliable, theoretically sound forecasting model for each rate class. Each model should be able to predict adequately historical sales.



55. PREPA shall develop a new sales forecast based on these models prior to submitting to the Commission another planning or rate case.
56. Any changes to PREPA's forecasting models in the future shall be clearly documented and supported by evidence.
57. In submissions relating to forecasts, PREPA shall provide clear, comprehensive, and accurate methodological documentation, including work-papers showing all relevant inputs and calculations, along with note sources for all assumptions and hard-coded values.
58. All forecasts shall explicitly account for energy efficiency, demand management and demand elasticity, by class and on a total system basis.
59. As part of its compliance filing, PREPA shall submit no later than February 15, 2017 for Commission review and approval, the computation and description of the actual permanent rate increase for each tariff code and the language it will include in each customer's bill explaining the increase.
60. As provided in Section 6A(f) of Act 83, PREPA's permanent rates shall enter into effect 60 days from the date of approval of this Final Resolution and Order.
61. The reconciliation of provisional rates with permanent rates shall commence when the permanent rates are in effect.
62. The reconciliation shall occur over the same amount of months that the provisional rates were in effect.
63. The reconciliation shall apply to the broad customer classes identified in Part Three-I.A., rather than on a customer-specific basis. This approach will save the \$130,000 per month that PREPA has estimated would be required to reconcile per-customer.
64. Because of the small size of the difference between the provisional rates and the permanent rates, the reconciliation shall be done by adjusting the per-kWh charge, rather than by adjusting each element of a customer class's rate structure.
65. As part of its compliance filing, PREPA shall provide, no later than February 15, 2017, the following information: (i) the total amount (in dollars) to be credit to customers, (ii) the allocation among customer classes of the total amount to be credited, and (iii) the amount (in cents/kWh) to be credited to each customer class on every billing cycle.
66. PREPA shall take necessary steps to assure that its audited financial statements can be completed and made available on a timely basis.





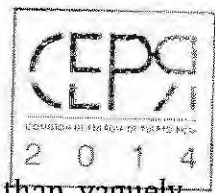
67. PREPA shall submit to the Commission its Monthly Reports to the Governing Board. 4  
In addition, the report to the Commission will include the following:

- a. explain significant variances between (i) budgeted and actual data, and (ii) current and prior year data.
  - b. provide information on Labor Costs, including how current month and year-to-date payroll, pensions, OPEBs and other employee benefit costs compare with prior year amounts and current year budgets.
  - c. provide information on PREPA's actual debt service coverage ratio.
  - d. provide information on the status of PREPA's financial restructuring, including significant events that have occurred during the reporting month.
68. PREPA shall allocate budgets for new initiatives and costs to specific functional areas, according to standards to be determined by the Commission.
69. As required by the Trust Indenture, PREPA shall retain a Consulting Engineer, different from the one previously engaged. Before recruiting the Consulting Engineer, PREPA shall submit to the Commission a description of the duties and the required qualifications. The Commission may comment on such description, but PREPA shall have full discretion to choose the Consulting Engineer. PREPA shall provide the Commission any information it requires about the functions, activities and reports of the Consulting Engineer.
70. PREPA shall allocate the allowed revenue increase in an equal cent-per-kWh basis with one exception.
71. Prior to computing the general cent-per-kWh increase referenced above, PREPA shall increase the PPBB revenue requirement by the average increase in the system revenue requirement, excluding the fuel, purchased-power and Transition Charge.
72. The remainder of the allowed revenue increase shall be divided by projected non-PPBB FY2017 sales to yield a general cent-per-kWh revenue increase rate.
73. The revenue allocation for each tariff shall be increased by the revenue increase rate times the projected sales for that tariff.
74. The fixed charge for non-subsidized GRS customers shall be raised to \$4.00, which is consistent with Mr. Chernick's recommendations. No other fixed charge shall be changed. The remainder of the revenue allocated to the GRS customers will therefore be recovered through the consumption (per kWh) charge. By making the decision to consume electricity more expensive, this approach will encourage more energy conservation and more renewable energy.





75. The Commission accepts Mr. Chernick's reasoning and his conclusion. PREPA shall maintain the existing cents/kWh differential in the GRS inclining block rate.
76. PREPA shall restructure the fuel discount for customers on the LRS, RH3 and GRS 111 tariffs, simplified as proposed in PREPA's filing, but modified so that the discount diminishes gradually over 425 kWh, rather than abruptly. The fuel discount shall be phased out from 425 kWh to 500 kWh.
77. The direct-debit discount shall remain as currently established, i.e., as a 10% discount on base rates, excluding all riders.
78. In the rate design proceeding, PREPA shall present a business case that describes the benefits and costs of this discount.
79. PREPA shall add the description of the direct debit discount to its tariff book.
80. PREPA shall not increase demand charges for any tariff other than PPBB (as described herein). The revenue increases assigned in this proceeding to the other tariffs with demand charges shall be recovered through PREPA's proposed customer charges and through increases in the per-kWh rates.
81. PREPA shall increase each component of the PPBB tariff by an equal percentage, computed to recover the revenue increase allocated to this class consistent with the Commission's determination above.
82. PREPA shall eliminate the ratchets and contract demands. They are unnecessarily complex and lacking in cost justification. With these changes, the demand-charge portion of the customer's bill shall be determined solely by the current month's 15-minute maximum demand.
83. This labor-intensive, deadline-driven rate case is a suboptimal time to make major changes in rate design, especially where the effects of those changes on various customers is not well-understood. PREPA shall retain Tariffs TOU-P and TOU-T without change in availability, and keep them open for new customers. PREPA shall eliminate the ratchets and contract charges from these tariffs, and increase the on-and off-peak energy charges in each tariff uniformly to recover the allocated revenue increase. We will address the issue of time-of-use rates in the upcoming rate design proceeding.
84. PREPA shall not initiate the economic development rate. The Commission does not currently have expertise in job development. The proposal does not address, among other things, the types of jobs or their longevity. Nor does the proposal address the Commission's ability to enforce the job creation requirement against a customer that fails to achieve that requirement. This Commission cares deeply about economic development, and will do all it can within its authority to stimulate it. But decisions of



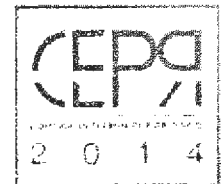
this importance to Puerto Rico's future must be supported by more than vaguely defined riders. We will discuss this option more deeply in the upcoming rate design proceeding.

85. PREPA shall institute a tariff offering load-retention discounts where necessary to retain load. The discounts shall be subject to Commission advance review, not produce rates below marginal cost, shall be no greater than necessary, shall not encourage wasteful consumption, and shall not pose an obstacle to the development of economical renewable energy.
86. Negotiations between PREPA and customers seeking this discount shall (a) be guided by the foregoing principles and any others the Commission establishes, and (b) include representatives of ICPO to the extent ICPO wishes to participate. This requirement is not intended to exclude others.
87. PREPA shall increase each component of the public lighting and unmetered tariffs by an equal percentage, computed to recover the revenue increase allocated to this class consistent with the Commission's determination above. We will revisit these issues in the rate-design proceeding.
88. PREPA shall raise each reconnection charge to its cost level: \$50 for secondary customers and \$500 for primary customers, adjusting its revenue requirement accordingly. This change aligns the charge with PREPA's estimates of actual cost. Any future changes in fee schedules require Commission approval.
89. All fuel and purchased-power costs shall be collected through the riders, zero through base rates.
90. The riders shall be updated quarterly. PREPA shall include an acceleration provision that is triggered upon a finding by the Commission that the combined difference between projected costs and projected revenues for the FCA, PPCA and the energy-efficiency adjustment in the current quarter exceeds \$20 million.
91. PREPA shall correct all erroneous language in the draft riders and submit the revised language to the Commission for approval.
92. The Contribution in Lieu of Taxes (CILT) shall no longer be collected by PREPA via the 0.89 factor that had been in the denominator of its Fuel and Purchased Power Adjustors. Rather, CILT will be collected through a separate rider. The FY2017 CILT amount shall be \$51,783,821.
93. Customers in the RFR class shall be exempt from the CILT as applied to the fixed block consumption charge, but shall pay CILT for consumption exceeding the fixed block.
94. PREPA shall correct the erroneous language in the draft rider and submit the revised language to the Commission for approval.



customers' consumption, as explain below. RFR customers shall pay the ~~subsidy~~ charge only for their consumption above their fixed-price consumption block.

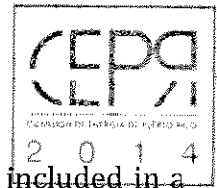
104. The subsidies rider shall be reconciled annually.
105. Future negotiations between the Irrigation District and its non-agriculture customers shall involve ICPO to the extent ICPO wishes to participate. This requirement is not intended to exclude others.
106. PREPA shall correct all erroneous language in the draft rider and submit the revised language to the Commission for approval.
107. PREPA shall charge net metering customers for inflow from PREPA's system at the normal rate for the tariff class.
108. PREPA shall credit non-grandfathered net metering customers for outflow at the sum of the customer's base rate energy charge; the fuel rider; the purchased-power rider; and the portion of the subsidy charge that covers Hotel Discount, Downtown Commerce, Churches analog, rural aqueducts, GAS, Condominium Common Areas, and irrigation district; and the Act 73 Tax credit.
109. PREPA shall credit grandfathered net metering customers for outflow at the sum of the customer's base rate energy charge; the fuel rider; the purchased-power rider; the energy-efficiency cost adjustment; the CILT rider; and the subsidy rider.
110. All credits should be applied on each monthly billing cycle. For the billing cycle closing in June of each year, seventy-five percent (75%) of any excess kWh credit accumulated by the net-metering customer during the previous year and which remains unused, shall be purchased by PREPA based on the applicable outflow credit for each customer. The remaining twenty-five percent (25%) shall be assigned to PREPA to be distributed in accordance with Section 5 of Act 114-2007.
111. PREPA shall provide the Commission with a monthly report of net metering applications, and actual connections, by number and capacity, and by tariff class.
112. PREPA shall improve its bookkeeping, record keeping, and auditing practices so that PREPA management and the Commission have meaningful, timely, and reliable cost information.
113. PREPA shall submit an annual report comparing historical budget forecasts to actual expenditures, along with lessons learned for future forecasting purposes.
114. PREPA shall use the most recent, Commission-approved IRP as the basis for the budget forecast.



95. Reconciliation of the CILT rider shall occur annually with each budget examination or three-year rate case filing, whichever applies.
96. The Commission will address the details of this rider when it determines energy efficiency programs, providers and budgets. For now, PREPA shall revise the rider to correct drafting errors and to provide for annual adjustment and reconciliation.
97. Based on legislative mandates and our interpretation of the term "subsidy," the following discounts and payments will be included in the subsidies charge:

Life-Preserving Equipment  
RFR Tariff  
LRS Tariff  
RH3 Tariff  
Residential Fuel Subsidy  
Analog Rate  
General Agricultural Service  
Hotel 11% Discount  
Rural Aqueducts on GRS  
Downtown 10% Subsidy  
Condo Common Areas  
Act 73 Income Tax Credit  
Public Lighting  
Energy Commission Assessment  
Irrigation District Deficit

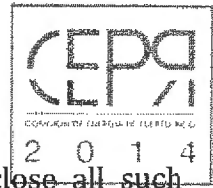
98. The FY2017 Subsidies amount shall be \$136,943,067.
99. The direct debit credit shall be removed from the subsidies line item because it will not be treated as a subsidy.
100. The non-recovery of certain costs from net-metering customers is not viewed by the Commission as a "subsidy" and therefore will not be recovered through the subsidies charge. It is a reduction in revenue, like the direct debit credit.
101. The economic-development rider is not approved at this time. The Commission will discuss it further with participants in the upcoming rate design proceeding.
102. As for the load-retention rider, the Commission will address the appropriateness of including any resulting reduction in revenues in the subsidy charge if and when it approves specific applications.
103. The only PREPA sales that will be exempt from the subsidy charge are the fixed blocks of the RFR tariff and some portions of the grandfathered net metering



115. For any major new capital projects (to be defined by the Commission) included in a budget forecast, PREPA shall provide a third-party based estimate.

For each cost-overrun deemed unreasonable by the Commission, PREPA shall provide an analysis containing at least the following elements:

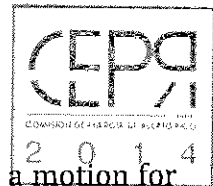
1. A summary of the process used by PREPA to forecast the budgets that were exceeded.
  2. A summary of the actions PREPA took to contain expenditures within forecasted budgets.
  3. A description of actions that PREPA will take to avoid budget over-runs in the future.
  4. A description of the departments within PREPA that are responsible for the budget forecasts and the operational and capital expenditures.
  5. The names and positions of the PREPA executives and department heads that are responsible for the budget forecasts and the operational and capital expenditures.
116. PREPA shall provide annually, consistent with a schedule to be determined by the Commission, (a) access to all operating and financial records of each of PREPA Holdings' subsidiaries; and (b) a list and description of all inter-affiliate transactions to which PREPA is a party.
117. PREPA shall create no new direct or indirect affiliates, nor inject further equity into or loan further money to, any direct or indirect affiliate, without informing the Commission at least 30 days before such action is to be taken. Such request for permission shall include a business plan, and financial and economic analyses demonstrating how the new business will bring benefits to Puerto Rico without causing harm to consumers or competition.
118. PREPA shall propose to the Commission a code of conduct that ensures, to the extent feasible, that affiliate relationships cause PREPA's customers no extra cost and cause PREPA's competitors no unfair disadvantage. Such code of conduct shall reflect the "state of the art" in protecting customers and competitors from harm.
119. Under no circumstances shall PREPA (a) guarantee any debt of the subsidiaries, (b) allow its assets or revenue to become security for any debt incurred by the subsidiaries, or (c) in any way become financially responsible for any commitments undertaken by the subsidiaries.
120. Until further notice, PREPA shall provide no resources or assistance to, or receive resources or assistance from, any affiliate whose business activities include



competing to provide renewable energy facilities. PREPA shall disclose ~~all such~~ resources or assistance that have been provided to date

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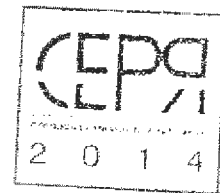


Any party adversely affected by this Final Resolution and Order may file a motion for reconsideration before the Commission, pursuant to Section 11.01 of Regulation 8543 and the applicable provisions of Act No. 170 of August 12, 1988, as amended, known as the Uniform Administrative Procedure Act ("LPAU", for its Spanish acronym). Said motion must be filed within twenty (20) days from the date in which copy of this Final Resolution and Order is notified and such notice is filed in the case docket by the Commission's Clerk. Any motion for reconsideration must be filed at the Commission Clerk's Office, located at the Lobby of 268 Muñoz Rivera Ave., San Juan, PR 00918. Copy of the motion as filed must be sent by email to all the parties notified of this Final Resolution and Order within the twenty (20) days established herein.

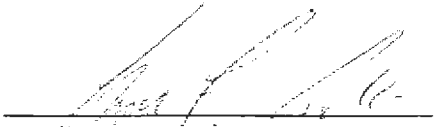
The Commission shall have fifteen (15) days from the date in which such motion is filed to consider it. If the Commission rejects it forthright or fails to consider it within said period of fifteen (15) days, the term to seek judicial review shall begin on the date in which the Commission notifies its rejection or the date in which said fifteen (15) days expire, whichever occurs first. If the Commission considers the motion, the term to seek judicial review shall commence from the date a copy of the notice of the Commission's resolution definitively resolving the motion for reconsideration is notified and copy of such notice is filed by the Commission Clerk. The Commission shall have ninety (90) days from the date the motion for reconsideration was filed to issue a final determination. If the Commission considers the motion for reconsideration but fails to take any action with respect to such motion within ninety (90) days of its filing, it shall lose jurisdiction and the term to seek judicial review shall commence upon the expiration of said ninety (90) day term, unless the Commission, for just cause and within those ninety (90) days, extends the term to resolve for a period that shall not exceed thirty (30) days.

In the alternative, any affected party may file a petition for review before the Court of Appeals within a term of thirty (30) days from the date a copy of the notice of this Final Resolution and Order was notified and copy of such notice was filed by the Commission's Clerk. Filing and notice of a petition for review before the Court of Appeals shall be made pursuant to the applicable provisions of Regulation 8543, the LPAU and the Rules of the Puerto Rico Court of Appeals.


Given its complex and technical nature, the Commission publishes this Final Resolution and Order in English. However, for the benefit of all parties involved, the Commission will provide a Spanish translation approximately 30 days from today. Should any conflict between each version arise, the English version shall prevail.



Be it notified and published.

  
Agustín F. Carbó Lugo

Chairman

  
Ángel R. Rivera de la Cruz  
Associate Commissioner

  
José H. Román Morales  
Associate Commissioner

### CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Commission has so agreed on January 10, 2017 and on this date a copy of this Final Resolution and Order was notified by electronic mail to the following: n-ayala@aeep.com, c-aquino@aeep.com, glenn.rippie@r3law.com, michael.guerra@r3law.com, john.ratnaswamy@r3law.com, codiot@opic.pr.gov, jperez@oipc.pr.gov, mmuntanerlaw@gmail.com, jfeliciano@constructorespr.net, abogados@fuerteslaw.com, jose.maeso@aae.pr.gov, edwin.quinones@aae.pr.gov, nydinmarie.watlington@cemex.com, aconer.pr@gmail.com, epenenergypr@gmail.com, jorgehernandez@escopr.net, ecandelaria@camarapr.net, pga@caribe.net, manuelgabrielfernandez@gmail.com, agraitfe@agraitlawpr.com, maribel.cruz@acueductospr.com, mgrpcorp@gmail.com, eirizarry@ccdlawpr.com and pnieves@vnblegal.com, attystgo@yahoo.com. I also certify that today, January 10, 2017, I have proceeded with the filing of the Resolution issued by the Puerto Rico Energy Commission and I have sent a true and exact copy to the following:

#### **Puerto Rico Electric Power Authority**

Attn.: Nérida Ayala Jiménez  
Carlos M. Aquino Ramos  
P.O. Box 363928  
Correo General  
San Juan, PR 00936-4267

#### **Rooney Rippie & Ratnaswamy LLP**

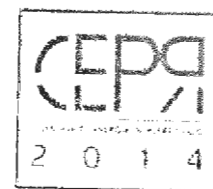
E. Glenn Rippie  
John P. Ratnaswamy  
Michael Guerra  
350 W. Hubbard St., Suite 600  
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#### **Oficina Independiente de Protección al Consumidor**

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#### **Sunnova Energy Corporation**

p/c Vidal, Nieves & Bauzá, LLC  
Lcdo. Pedro J. Nieves Miranda  
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**Autoridad de Acueductos y  
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p/c Lcda. Maribel Cruz De León  
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**Autoridad Acueductos y  
Alcantarillados de Puerto Rico**

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**Asociación de Constructores de  
Puerto Rico**

p/c Lcdo. José Alberto Feliciano  
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San Juan, Puerto Rico 00919-2396

**Centro Unido de Detallistas, Inc.**

Lcdo. Héctor Fuertes Romeu  
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San Juan, Puerto Rico 00919-4000

**CEMEX de Puerto Rico, Inc.**

Lcdo. Edwin A. Irizarry Lugo  
CCD Law Group, P.S.C.  
712 Ave. Ponce de León  
San Juan, Puerto Rico 00918

**CEMEX de Puerto Rico, Inc.**

p/c Enrique A. García  
Lcda. Nydin M. Watlington  
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San Juan, Puerto Rico 00936-4487

**Asociación de Consultores y Contratistas  
de Energía Renovable de Puerto Rico**

p/c Edward Previdi  
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San Juan, Puerto Rico 00908-6714

**Energy & Environmental Consulting  
Services Corp.**

Jorge Hernández, PE, CEM, BEP  
560 C/ Aldebarán, Urb. Altamira  
San Juan, Puerto Rico 00920

**Cámara de Comercio de Puerto Rico**

p/c Eunice S. Candelaria De Jesús  
PO Box 9024033  
San Juan, Puerto Rico 00902-4033

**Grupo Windmar**

p/c Lcdo. Marc G. Roumain Prieto  
1702 Ave. Ponce de León, 2do Piso  
San Juan, Puerto Rico 00909

**Instituto de Competitividad y  
Sostenibilidad Económica de  
Puerto Rico**

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**Asociación de Industriales de  
Puerto Rico**

p/c Manuel Fernández Mejías  
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**Oficina Estatal de Política Pública  
Energética**

p/c Ing. José G. Maeso González  
Lcdo. Edwin J. Quiñones Porrata  
P.O. Box 413314  
San Juan, Puerto Rico 00940

**Asociación de Hospitales de Puerto Rico**

p/c Lcda. Marie Carmen Muntaner  
Rodríguez  
470 Ave. Cesar González  
San Juan, Puerto Rico 00918-2627

For the record, I sign this in San Juan, Puerto Rico, today, January 10, 2017.

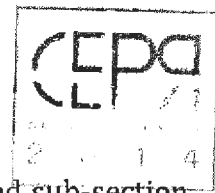
  
\_\_\_\_\_  
María del Mar Cintrón Alvarado  
Clerk



## Procedural History

### TIMELINE AND HISTORY OF THE PROCEEDING

- **First Order on Rate Case Proceeding:** June 1, 2015. Pursuant to the requirements of Act 57-2014, which required PREPA to file its first rate case within one hundred and eighty (180) days of the approval of Act 57-2014, the Commission initiated the procedure by ordering PREPA to file a petition for rate reviews consistent with the regulation on filing requirements that was issued by the Commission on a later date.
- **Rate Case Petition Regulations Enacted:** July 24, 2015. The Commission enacted and approved Regulation No. 8620, known as the Regulation on Rate Filing Requirements for the Puerto Rico Electric Power Authority ("Regulation 8620"), which established the filing requirements for PREPA's first Rate Case. Regulation 8620 was enacted pursuant to the emergency procedures set forth in the Uniform Administrative Procedures Act ("UAPA"), as authorized by Article 6.20 of Act 57-2014.
- **Rate Case Petition Regulations Amended:** March 28, 2016. Although the Commission had ordered PREPA to file its first rate case through its May 29, 2015 Order, ongoing restructuring negotiations with PREPA's bondholders and main creditors forcibly postponed the filing until a clear understanding of PREPA's financial obligations was obtained. This resulted in the enactment of Act 4-2016, known as the PREPA Revitalization Act ("Act 4-2016"), which established the mechanism for the restructuring of PREPA's financial obligations and operational and administrative procedures. Act 4-2016 also amended several provisions of Act 57-2014 related to the review of PREPA's rates. As such, the Commission adopted a new regulatory framework consistent with the changes incorporated by Act 4-2016 and approved and enacted Regulation No. 8720, known as the New Regulation on Rate Filing Requirements for the Puerto Rico Electric Power Authority's First Rate Case ("Regulation 8720"). Regulation 8720 was enacted pursuant to Section 2.13 of the UAPA.
- **Request for Waiver:** March 30, 2016. In anticipation of its formal application for rate review and pursuant to Section 2.19 of Regulation 8620, PREPA filed a request seeking waiver from compliance of filing requirements set forth in Regulation 8620, specifically for subsections 3.02(D), 2.10(A) and 1.08(43). PREPA also requested clarification of sub-sections 3.02(A) and 2.10(C), which required PREPA to file to the Commission all reports from the Chief Restructuring Officer to PREPA's Board of Directors.
- **Response to Waiver Request:** April 13, 2016. The Commission issued an Order addressing PREPA's request for waiver in which it determined that the requests made related to sub-sections 3.02(D) and 1.08(43) were unnecessary and granted the



requested waiver for sub-section 2.10(A). The Commission also clarified sub-section 3.02(A) and 2.10(C) stating that such reports included information related to PREPA's overall performance and operations, which is relevant to review PREPA's actual costs.

- **Second Request for Clarification and/or Waiver:** May 4, 2016. PREPA filed a second request for clarification and /or waiver of certain provisions of Regulation 8720 with regards to the design and reconciliation of provisional rates.
- **Response to Second Clarification and/or Waiver Request:** May 12, 2016. The Commission issued an Order addressing PREPA's request for clarification and/or waiver. As a response to PREPA's clarification request regarding provisional rates, the Commission determined that PREPA should provide at least two (2) alternatives for the implementation of provisional rates, one contemplating the implementation of a uniform percentage change in base rates across all customers' classes and a second alternative contemplating the application of a specific percentage change in base rates for each customer class, provided that said percentage change must be applied uniformly within each class. With regards to the request for clarification of the reconciliation mechanism, the Commission deemed it as premature and deferred it to be solved further on in the proceeding.
- **PREPA's Verified Petition for Approval of Permanent Rates and Temporary Rates ("Petition"):** May 27, 2016. PREPA filed its Petition pursuant to Regulation 8720<sup>329</sup>. Along with PREPA's Petition, PREPA requested temporary rates pursuant to Section 6A(e) of Act 83, Section 6.25(d) of Act 57-2014 and Section 2.02 of Regulation No. 8720. In its Petition for temporary rates, PREPA proposed a distinct percentage increase to each customer class to recover what it considered to be a deficiency of \$222,256,790 (on an annual basis).
- **Determination of Filing Completeness:** June 13, 2016. The Commission issued a Resolution and Order in which it determined that PREPA's Petition was incomplete and issued a list of fourteen (14) specific findings of incomplete filing requirements<sup>330</sup> that PREPA needed to provide to complete their Petition.

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<sup>329</sup> PREPA filed direct testimony of the following witnesses: Javier Quintana, Executive Director of PREPA; Lisa J. Donahue, Managing Director, AlixPartners, LLP and Chief Restructuring Officer; Panel Testimony of Sonia Miranda Vega, Director of Planning and Environmental Protection, Puerto Rico Electric Power Authority (replaced by Dr. Quintana); Antonio Perez Sales, Director, AlixPartners, LLP; Virgilio Sosa Director, AlixPartners, LLP; Panel Testimony of Ralph Zarumba, Vice President, Concentric Energy Advisors and Eugene Granovsky, Managing Consultant at Navigant Consulting; Panel Testimony of Francis X. Pampush, PhD, Director, Navigant Consulting, Inc; Lucas D. Porter, Managing Consultant, Navigant Consulting Inc.; and Dan T. Stathos, Associate Director, Navigant Consulting Inc.; Lawrence Kaufmann, PhD, Senior Advisor, Navigant Consulting, Inc.; and Ross Hemphill, PhD, Senior Advisor to Navigant Consulting, Inc.

<sup>330</sup> See Attachment A of June 13, 2016 Resolution and Order on Docket No. CEPR-AP-2015-0001.



- **Determination of Provisional Rates:** June 27, 2016. The Commission granted PREPA's request for a temporary rate. The Commission determined that PREPA had complied with the requirements of Regulation No. 8720 and had demonstrated and justified the need of implementing provisional rates. The Commission approved a uniform rate increase of 1.299¢/kWh among all customer classes, the amount necessary to produce the \$222 million in new revenue.
- **Determination of Completeness:** July 15, 2016. The Commission issued a Resolution and Order in which it determined that the Petition, as supplemented by PREPA, was complete for purposes of Regulation 8720.
- **Interventions:** August 1, 2016 – August 5, 2016. The Commission received sixteen (16) requests for intervention and on August 12, 2016, through a Resolution and Order, the Commission granted intervention to fifteen (15) entities. The following parties were granted intervention: PV Properties, Inc., Windmar PV Energy Inc., Windmar Renewable Energy, Inc. and Coto Laurel Solar Farm, Inc. ("Windmar Group"); Commonwealth Energy Public Policy Office ("CEPPO"); Asociación de Consultores y Contratistas de Energía Renovable de Puerto Rico ("ACONER"); CEMEX de Puerto Rico, Inc. ("CEMEX"); Energy & Environmental Consulting Services Corp. ("ESCOPR"); Sunnova Energy Corporation ("Sunnova"); Independent Consumer Protection Office ("ICPO"); the Puerto Rico Aqueduct and Sewer Authority ("PRASA"); Instituto de Competitividad y Sostenibilidad Económica de Puerto Rico ("ICSE-PR"); Puerto Rico Industrials Association ("AIPR", for its Spanish acronym); Marketing, Industry and Food Distribution Chamber ("MIDA", for its Spanish acronym); Puerto Rico Hospitals Association ("Hospitals Association"); Centro Unido de Detallistas (*Retailers*) ("CUD", for its Spanish acronym); Puerto Rico Chamber of Commerce ("Chamber of Commerce"); and the Puerto Rico Construction Association ("ACPR", for its Spanish acronym or "Builders Association").<sup>331</sup> The Commission denied the Asociación Puertorriqueña de Energía Verde's ("APEV") request for intervention<sup>332</sup>.

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<sup>331</sup> The Commission granted ICSE-PR, Industrials Association, MIDA, the Hospitals Association, the Centro Unido de Detallistas, the Chamber of Commerce and the Builders Association subject to them coordinating their joint participation through a group denominated "Commercial and Industrial Associations Consortium" based on the striking similarities between the motions filed by the parties. The Commission determined the motions presented did not show the existence of a particular interest distinguishable from those of other Associations. ICSE-PR, AIPR, AHPR, and the Chamber of Commerce requested reconsideration of the Commission's determination to join the parties. After several procedural events and examining the parties' arguments, the Commission reconsidered its August 12, 2016 determination with regards to the joint appearance by the Associations.

<sup>332</sup> APEV requested reconsideration of the Commission's determination on September 1, 2016. The Commission denied APEV's request for consideration on September 15, 2016.

- **Commission Issues Procedural Timeline:** August 15, 2016. The Commission issued the Procedural Timeline for the Rate Case proceeding.
- **Discovery:** August 15, 2016 – September 19, 2016. Intervenors had the opportunity to conduct discovery regarding a diverse range of subjects related to PREPA's Petition.
- **Public Hearings:** September 10, 2016 – September 14, 2016. The Commission held four (4) public hearings in different places around the Island with the purpose of achieving a bigger citizen participation.<sup>333</sup>
- **PREPA Revised Testimony:** October 13, 2016<sup>334</sup>. Through Order of September 27, 2016 the Commission requested PREPA to submit supplemental or revised testimony and exhibits to ensure its Petition was up to date and consistent with events that had transpired and directly impacted many of the scenarios and assumptions in which PREPA based its Petition. In specific, the Order also requested that the revisions submitted by PREPA reflected the Final Resolution and Order on the Integrated Resource Plan, a per kWh Transition Charge for residential customers and necessary revisions due to the departure of Sonia Miranda, former Director of Planning and Environmental Protection<sup>335</sup>.
- **Intervenor Testimony:** October 25, 2016<sup>336</sup>. Intervenors filed their pre-filed written testimonies. For ACONER appeared witnesses Mr. Edward Previdi, PE, President of ACONER and economist Mr. Vicente Feliciano; for the Chamber of Commerce appeared witness Gerardo Cosme Nuñez, PE; for CEMEX appeared Mr. Enrique García, President and CEO of CEMEX and Manuel R. Valente, Director of Operations of CEMEX; for CUD appeared Mr. Nelson Ramírez; for the Builders Association, Mr. Emilio Colón Zavala, PR Vice President of the ACPR; for Hospital Association, Mr. Jaime G. Plá Cortés, Executive President of the Puerto Rico Hospital Association; for ICSE-PR appeared Mrs. Cathy Kunkel, Mr. Tom Sanzillo, Director of Finance for the Institute for Energy Economics and Financial Analysis and Dr. Victor Glass, Professor at Rutgers Business School; for the Industrials Association, Mr. Rodrigo Masses and Artze,

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<sup>333</sup> The public hearings were held on September 10, 2016 in Mayagüez, September 12, 2016 in Ponce, September 13, 2016 in Humacao and September 14, 2016 in San Juan.

<sup>334</sup> The initial date to file the revised or supplemental testimony was October 11, 2016. On that same date, PREPA filed a request for extension, which was granted by the Commission by Resolution of October 12, 2016.

<sup>335</sup> Mrs. Sonia Miranda retired mid case. Her testimony was adopted by the Executive Director, Javier Quintana-Méndez, PE.

<sup>336</sup> The initial date per the Commission's published calendar to file Intervenor's pre-filed testimony was October 14, 2016, nevertheless after several changes to the procedural calendar the final date to file testimonies was set for October 25, 2016.



Chairman of the Board of Directors of the AIPR; for MIDA appeared Mr. Manuel Reyes Alfonso, Executive Vice-President for MIDA<sup>337</sup>; for CEPPO appeared Mr. José G. Maeso González, EIT, Director of the CEPPO; for the ICPO appeared Dr. Guillermo M. Riera, PE; for PRASA appeared Mrs. Lynnette M. Ramírez Rivera, Executive Director of Infrastructure; for Sunnova appeared economist Mr. Steven Gabel; and for Windmar, Mr. Víctor L. González.<sup>338</sup>

- **Discovery on Intervenor's Pre-Filed Testimony:** October 28, 2016 – November 2, 2016. PREPA and the Commission had the opportunity to conduct discovery related to the matters addressed by Intervenors in their testimonies.
- **Technical Conference Calls:** October 20, October 31, November 9 and November 15, 2016. The Commission Staff held several Technical Conference Calls to clarify subjects and issues that were addressed during the Commission's discovery process to PREPA. Both PREPA and intervenors participated in the Conference Calls.
- **Hemphill Updated Testimony:** November 14, 2016. On October 14, 2016, PREPA filed a supplemental testimony of Dr. Ross Hemphill. The Commission, through Resolution of October 27, 2016, requested PREPA to update Dr. Hemphill's testimony to answer how his proposed formula rate mechanism provided the Commission with the resources to prevent PREPA from incurring in costs that are not prudent and reasonable.
- **Rebuttal Testimony:** November 16, 2015<sup>339</sup>. The parties had the opportunity to file written rebuttal testimony to any testimony filed by any of the intervenors.
- **Rebuttal Testimony Late Filing:** November 16, 2016. On November 14, 2016, PREPA filed part of its rebuttal testimony accompanied by a motion notifying the Commission that it was not able to file in time the rebuttal testimonies of Javier Quintana-Méndez, Lisa Donahue and the panel testimony of Javier Quintana-Méndez, Antonio Pérez Sales and Virgilio Sosa due to lack of availability from the witnesses to approve the final versions. The Commission denied PREPA's request for leave to file the testimonies through Resolution of November 21, 2016.

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<sup>337</sup> On November 15, 2016, MIDA filed a motion notifying its intent to desist of their intervention in the instant proceeding. The Commission, through Resolution and Order of November 17, 2016, took notice of MIDA's motion and accepted the resignation. The Commission also stroke MIDA's testimony from the record and ordered all parties to disregard MIDA's filings in the present case when addressing any issues on the proceeding.

<sup>338</sup> Environmental Consulting Services Corp. did not file a pre-filed written testimony.

<sup>339</sup> The initial date to file the rebuttal testimony was November 10, 2016. On that same date PREPA filed a request for extension to November 16, 2016, which was granted by the Commission by Resolution of November 14, 2016.

- **Commission's Expert Reports:** November 21, 2016 – November 23, 2016. The Commission published five reports authored by the Commission's technical consultants, to provide all parties an opportunity to comment on the analysis conducted, and recommendations made. The Commission's decision to publish its consultant's reports was consistent with the provisions of Act 57-2014 regarding the transparency of the proceedings. Therefore, to promote transparency, the Commission chose to make all analyses and recommendations public and allow the parties to question them at the technical hearings. The above was decided with the interest of achieving a well informed and duly grounded final determination. The reports addressed the following subjects: Revenue Requirement Equation, authored by Ralph Smith and Mark Dady<sup>340</sup>; Financial Issues, authored by Steven Hill<sup>341</sup>; Reasonableness of Costs, authored by Dr. Jeremy Fisher and Dr. Ariel Horowitz<sup>342</sup>; Revenue Allocation, Rate Design and Distributed Generation, authored by Paul Chernick<sup>343</sup>; and Methods for Updating Rates and Ensuring Prudence, authored by Tim Woolf<sup>344</sup>.
- **Technical Hearings:** November 29, 2016 – December 16, 2016. The Commission held a technical hearing consisting of nine (9) panels organized by subject matter based on the parties' testimonies. During each panel the Commission and parties questioned the parties' expert witnesses and Commission's technical consultants with regards to their testimony and expert reports.
- **Parties Substantive Briefs:** December 27, 2016. The parties had the opportunity to file substantive briefs before the Commission. On December 19, 2016, the Commission issued a set of directives and questions to guide the parties' discussion on substantive matters. The following parties submitted their briefs ACONER, Sunnova, CEMEX, ICPO, Windmar, ICSE-PR, PRASA and PREPA.
- **Parties Legal Briefs:** December 28, 2016. The parties had the opportunity to file substantive briefs before the Commission. On December 20, 2016, the Commission issued a set of directives and questions to guide the parties' discussion on legal

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<sup>340</sup> Ralph Smith, Certified Financial Planner professional, Certified Rate of Return Analyst, and licensed Certified Public Accountant and attorney with Larking & Associates and Mark Dady, certified public accountant and regulatory analyst with Larkin & Associates.

<sup>341</sup> Steven Hill, financial consultant, and principal of Hill Associates.

<sup>342</sup> Dr. Jeremy Fisher, Principal Associate at Synapse Energy Economics, Inc., and Dr. Ariel Horowitz, Senior Associate at Synapse Energy Economics.

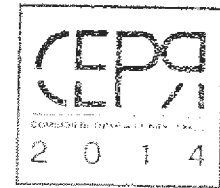
<sup>343</sup> Paul Chernick, President of Resource Insight, Inc.

<sup>344</sup> Tim Woolf, Vice President at Synapse Energy Economics.

matters. The following parties submitted their briefs ACONER, Sunnova, CEMEX, ICPO, Windmar, ICSE-PR, PRASA and PREPA.



\* \* \*



## Summary of Witness Testimonies

### Puerto Rico Electric Power Authority

#### *Summary of the Testimony of Javier Quintana Méndez, Ph.D., P.E., Executive Director<sup>345</sup>*

Dr. Quintana's direct testimony provides background and basic information for purposes of the rate review. His testimony describes at a high level PREPA's structure, mission, and vision as a public power electric utility. He also discusses, at a high level, what PREPA is doing to mitigate rate increases with its business plan and the focused efforts to improve PREPA and its operations that began in summer 2014 and continue to this day and going forward. He also provides a high level overview of PREPA's rate Petition, reasons for the rate review filing and rate impacts for PREPA customers. He also provides a "road map" to the other testimony filed with the Petition. In addition, Dr. Quintana adopted the panel testimony of Sonia Miranda (PREPA Ex. 3.0) after Ms. Miranda retired.

Dr. Quintana's supplemental direct testimony responds to the Commission's questions in its September 27, 2016, Order. He summarizes key events that have occurred since PREPA first filed its case, presents and explains PREPA's current conclusions about how the Commission's Integrated Resource Plan ("IRP") Order of September 23, 2016 could affect PREPA's revenue requirement for Fiscal Year ("FY") 2017 and PREPA's business plans for FY2017, 2018, and 2019. His testimony also provides a "road map" to the other Supplemental Direct Testimony filed by PREPA.

He also testified as part of many Panels at the technical hearing. Among the many subjects he discussed were PREPA's needed rate increase, its financial condition and debt restructuring efforts (in part confidential testimony), development of PREPA's budget, contract relations with union laborers, and the need for AOGP and the absence of realistic alternatives.

#### *Summary of the Testimony of Lisa J. Donahue, Managing Director, AlixPartners, LLP and Chief Restructuring Officer*

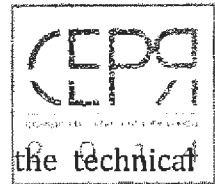
Ms. Donahue's direct testimony in support of permanent rates discusses issues related to PREPA's financial condition. She discusses PREPA's financial and liquidity situation and how it must be addressed, particularly in relation to this rate review. She also discusses the efforts to restructure PREPA's debt, how this rate review addresses the debt and liquidity issues, and PREPA's immediate liquidity crisis that requires immediate action.

Ms. Donahue's direct testimony in support of provisional rates discusses PREPA's liquidity crisis and how it relates to PREPA's provisional rates request. Her rebuttal

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<sup>345</sup> Dr. Quintana's rebuttal testimony was not allowed since it was filed late. See Resolution, CEPR-AP-2015-0001, November 21, 2016.





testimony was not allowed as late. She testified during multiple Panels at the technical hearing, including on the subject of debt restructuring efforts (in part confidential testimony), among others.

*Summary of the Testimony of Sonia Miranda Vega, Director of Planning and Environmental Protection, Puerto Rico Electric Power Authority (replaced by Dr. Quintana); Antonio Perez Sales, Director, AlixPartners, LLP; Virgilio Sosa Director, AlixPartners, LLP.<sup>346</sup>*

The Business Plan Panel's direct testimony provides an overview of PREPA's recovery plan and explains how the rate deficiency has been cut by 60% to significantly mitigate the rate increase. It also explains PREPA's historical operational and service issues and describes how PREPA's Business Plan was developed to address them. The panel testimony describes the Business Plan and the progress to date in generating savings for PREPA customers, discusses the expected savings to be achieved going forward for PREPA customers, and describes how the Business Plan (and update to it) served as a basis for the known and measurable changes proposed to the 2014 test year revenue requirement. Finally, it provide support for PREPA's capital expenditures and operating expenses included in the rate filing.

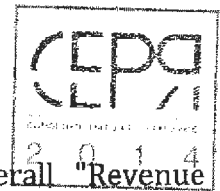
The panel testified as part of the technical hearing on multiple Panels, supporting operating expenses and AMI meter capital spending, among many topics. In particular, Mr. Sosa testified at Panel D of the technical hearing in support of outage costs and other information. He conducted an analysis of the severity and frequency of forced outages between 2013 and 2014, and conducted a cost analysis of various factors and the impact to the consumer. The increase in severity of outages is affected by PREPA's ability to procure and contract the necessary contractors to repair the unit. Mr. Pérez also testified on several panels, including Panel E, where he supported PREPA's budget allocations, particularly costs associated with labor and the replacement of meters. Mr. Pérez also testified regarding the limits on performance bonuses and the benefits of allowing incentives.

*Summary of the Testimony of Ralph Zarumba, Vice President, Concentric Energy Advisors and Eugene Granovsky, Managing Consultant at Navigant Consulting.*

Mr. Zarumba and Mr. Granovsky's first piece of direct testimony (PREPA Ex. 4.0) presents and supports what is commonly referred to as the "rate design" of the proposed "permanent" rates. Mr Granovsky and Mr. Zarumba explain that the proposed rate design: (1) updates tariffs to reflect the costs of the utility; (2) gives PREPA the opportunity to recover its "revenue requirement" (its costs of offering and providing service to its Customers); (3) moves toward a more equitable allocation of the revenue requirement to Customers; (4) implements legislative initiatives; (5) promotes a clean energy solution; and (6) improves the transparency of rates and bills. Mr. Zarumba and Mr. Granovsky's second piece of direct testimony (PREPA Ex. 8.0) presents and supports what is commonly referred to as the embedded cost of service study or "ECOSS". The ECOSS study is used in the

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<sup>346</sup> Their rebuttal testimony was not allowed as late.

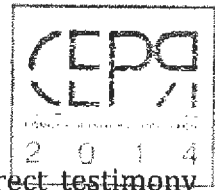


development of rates to assign or allocate a portion of a utility's overall "Revenue Requirement" to each of the utility's separate Tariff Rate classes. Their testimony describes the process used to develop the ECOSS and provides the results of the ECOSS studies for three scenarios. Mr. Zarumba and Mr. Granovsky's supplemental direct testimony (PREPA Ex. 15.0) revises the residential rate design previously filed in their direct testimony. Their testimony includes: an explanation of the changes in the design of the Transition Charge for residential customers; a discussion of why a change in the residential pricing design is required; the proposed changes in the residential pricing design; errata with respect to cost of service information and proposed pricing design; revisions to PREPA's Marginal Cost Worksheet; and revisions to the proposed pricing design which result from the above changes including revised tariff sheets.

Mr. Zarumba and Mr. Granovsky's rebuttal testimony revises the proposed tariffs to reflect changes in the format of the revenue requirement identified by the Revenue Requirement Panel and updated marginal energy costs attributable to a change in the fuel and purchased power costs projections. Their testimony also responds to certain topics and issues raised in specific intervenor testimony, addresses pricing issues for Distributed Energy Resources ("DER"), and responds to certain practical and mechanical challenges introduced in the Commission's November 3rd Resolution limiting the pricing design topics in this proceeding. Mr. Zarumba and Mr. Granovsky testified on multiple Panels at the technical hearing, supporting the rate design and cost of service studies, among many topics.

*Summary of the Testimony of Francis X. Pampush, Ph.D., Director, Navigant Consulting, Inc; Lucas D. Porter, Managing Consultant, Navigant Consulting Inc.; and Dan T. Stathos, Associate Director, Navigant Consulting Inc.*

The Revenue Requirement Panel's testimony provides the results of their original analysis of PREPA's historical and current investments in electric plant in service and its costs of operation to serve its customers, as well as costs of debt. This analysis focuses on PREPA's financial requirements starting with Fiscal Year 2014 in accordance with the Commission's rules and then looking at known and measureable adjustments, in order to develop the revenue requirements as of FY2017 sufficient to allow PREPA to meet its obligations to provide safe, reliable, and reasonably priced electric power and services to its residential, industrial, commercial, and governmental customers. The panel also describes their approach to the development of revenue requirements that provides a reasonable basis for rates to be proposed to the Commission, including evaluations using three different methodologies: an evaluation of PREPA's cash needs to meet its obligations, the Modified Cash Basis ("MCB"), which they found to be the most suitable approach; an evaluation of revenues sufficient to provide a minimum Debt Service Coverage Ratio ("DSCR"); and an evaluation of the revenues required to produce a reasonable return on Rate Base (i.e., the net investments in its system on which it should earn a return of and on that investment) under traditional Accrual Basis (Rate Base/Rate of Return) regulation. The panel chose the MCB model on its merits, which yielded the lowest of the three revenue requirement figures. The panel also describes the impact on rates and costs of capital from a longer term financial perspective and the financial profile that PREPA should seek to attain as a condition of regaining access to credit markets. This section provides some identifiable metrics that can



be tracked for progress. The revenue requirement panel's supplemental direct testimony responds to the Commission Order dated September 27, 2016, requesting PREPA to provide revisions to the revenue requirement to reflect certain considerations consistent with the Commission's Integrated Resource Plan ("IRP") Order of September 23, 2016, and provides errata to previously filed testimony.

The Revenue Requirement's rebuttal testimony provides certain revised schedules that reflect a correction in the way that Contributions in Lieu of Taxes ("CILT") and Subsidies are handled in the calculation of PREPA's revenue requirements. It also responded to various intervenors regarding revenue requirements and pass-through fuel and purchased power costs. This correction yields a base rate revenue requirement of \$2,732,427,174, and a base rate increase of \$178,164,977. The revenue requirement panel also testified on many subjects during the technical hearing.<sup>347</sup> Mr. Stathos, Dr. Pampush, and Mr. Porter testified on multiple Panels at the technical hearing, supporting PREPA's revenue requirement and its calculation, among other topics.

*Summary of the Testimony of Lawrence Kaufmann, Ph.D., Senior Advisor, Navigant Consulting, Inc.*

Dr. Kaufmann's direct testimony presents benchmarking evidence on PREPA's cost performance relative to a number of peer utilities. This evidence suggests that PREPA's internal cost management is not the primary factor in PREPA's financial difficulties. In other words, past imprudence in spending, if any, is not a primary driver of the needed rate increase.

Dr. Kaufmann's direct testimony responds to the testimony of ICSE-PR witnesses Tom Sanzillo and Cathy Kunkel regarding benchmarking and the reasonableness of PREPA's costs and revenues in comparison with other utilities. He supports his direct testimony and refutes the ICSE-PR testimony. He also testified at the technical hearing, including explaining the purposes of the benchmark testimony.

*Summary of the Testimony of Ross Hemphill, Ph.D., Senior Advisor to Navigant Consulting, Inc.*

Dr. Hemphill's direct testimony (PREPA Ex. 7.0) supports PREPA's proposed Formula Rate Mechanism ("FRM"). He discusses the advantages of formula ratemaking versus the traditional rate case approach, PREPA's proposal for an FRM and explains how it would operate and what annual filings PREPA would make as part of the proposed process. He also discusses why a formula approach is particularly suited to PREPA's current situation. Dr. Hemphill's supplemental direct testimony (PREPA Ex. 16.0) provides additional detail about

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<sup>347</sup> PLEASE NOTE: The foregoing figures do not reflect (1) Staff's adjustment for fuel costs increase, which should be adopted but simply adds to the pass-through of fuel costs; and (2) the associated Staff bad debt expense adjustment, which also should be adopted, and which does affect base rates.



the FRM and shows how the FRM directly, justly, and reasonably to the changes and uncertainties identified in the Commission's Order of September 27, 2016. Dr. Hemphill's additional supplemental direct testimony (PREPA Ex. 17.0) provides additional shall include specific information and concrete examples of how the proposed FRM provides the Commission with the ability to prevent PREPA from incurring in unreasonable or imprudent costs.

Dr. Hemphill's rebuttal testimony (PREPA Ex. 25.0) responds to ICSE-PR witnesses Tom Sanzillo and Cathy Kunkel and addresses the concern raised by intervenors that a rate increase will drive down demand. Dr. Hemphill clarifies that the increased regulatory oversight that Mr. Sanzillo and Ms. Kunkel acknowledge comes with the FRM will provide the Commission with tools to address the challenge of setting just and reasonable base rates. He also details how an FRM would reconcile revenues and expenses to address any drops in load, and notes that the FRM process does not increase rates as compared to traditional ratemaking. He also testified at the technical hearing, providing support for PREPA's proposed FRM and providing details of how the FRM would provide transparency over PREPA's costs and planning process. He further discussed how the FRM would operate and incentives for PREPA to control costs and operate under a budget submitted to the Commission.

*Summary of the Testimony of Ralph Zarumba, Vice President, Concentric Energy Advisors.*

Mr. Zarumba's direct testimony in support of permanent rates presents and supports PREPA's Marginal Cost of Service Study ("MCOSS"). He describes the MCOSS preparation process and details how the MCOSS identifies the value of incremental costs required to serve new load.

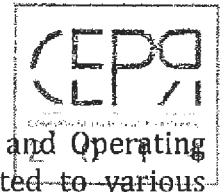
Mr. Zarumba's direct testimony in support of temporary rates presents and supports PREPA's proposed temporary rates. He describes the evidence supporting the need for temporary rates and discusses implementation and rate design of the temporary rates, as well as \$/kWh increases for each customer class. He also testified on the subject of how to do the provisional rate reconciliation at the technical hearing.

*Summary of the Testimony of Dan T. Stathos, Associate Director, Navigant Consulting Inc.*

Mr. Stathos' direct testimony in support of temporary/provisional rates presents and supports the revenue requirement to support PREPA's then-proposed temporary rates. The proposed temporary rates were based on the same original revenue requirement and revenue deficiency calculated for purposes of establishing new "permanent" rates, so the temporary rates are supported by the same extensive information and materials.

*Summary of the Testimony of Gregory Rivera Chico, Superintendent in the Planning and Research Division, Puerto Rico Electric Power Authority.*

Mr. Rivera's rebuttal testimony responds to issues raised by intervenors, including: financing of capital projects; subsidies; interconnection of generation; solar and storage;



renewable energy credits; the IRP Order; and renewables Power Purchase and Operating Agreements. His testimony clarifies the legal and operational issues related to various proposals presented by intervenors.

Mr. Rivera also testified during the technical hearing on numerous subjects as part of multiple panels. During Panel D, Mr. Rivera confirmed that PREPA did not conduct an elasticity study; however, this issue was addressed during Panel E. The revenue and allocation requirements are snap shots in time and do not change with each customer that enters/leaves the system, this would require a constant never-ending rate case. Prior to Act 57-2014, PREPA was not able to negotiate directly with customers; however, there is currently no position that exists to head this role. Anything would have to go through the Executive Director. He also supported PREPA's treatment of various other issues, including subsidies.

*Summary of the Testimony of Lucas D. Porter, Managing Consultant, Navigant Consulting Inc.*

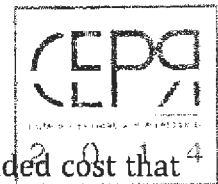
Mr. Porter's rebuttal testimony provides data and support for the rebuttal testimony of Messrs. Zarumba and Granovsky (PREPA Ex. 24.0) concerning PREPA's proposed Net Energy Metering credit. His testimony regarding the lifecycle cost analysis of Solar PV provides a foundational quantification of the per kWh price of solar generation that satisfies all capital and operating cost requirements over the life of an asset. The analysis assumes efficient ownership of projects, which in Puerto Rico specifically requires Third-Party Ownership, wherein investors in solar projects take advantage of available incentives provided by the U.S. Federal government. This is a fair assumption, in that the additional capital cost burden is not taken by the people of Puerto Rico. It is also an assumption consistent with reality – in the United States, Third-Party Ownership has been the strong majority of new projects for several years, and, based on interviews and independent research, the same is true for Puerto Rico. His analysis assumes level of profit to equipment providers and project developers, positive returns to owners of the projects that are consistent with returns seen in other jurisdictions, standard contract structure assumptions, and applicable operating expenses. Mr. Porter also testified on these subjects during Panel H at the technical hearing.

*Summary of the Testimony of Ernesto Ramos, PREPA Interim CFO.*

Mr. Ramos testified during the technical hearing regarding, among other things, PREPA's financial condition, restructuring costs, budgeting and budgets, accounting, financial statements, other financial reports.

*Summary of the Testimony of Joseline Estrada Rivera, Forecasting and Statistics Department Manager.*

Ms. Estrada, during the technical hearing, supported PREPA's forecast and underlying econometric models, including the models' consideration of migration effect, energy efficiency, and distributed generation, among other factors. In providing responses to



questions about PRASA's preferential rate, Ms. Estrada re-iterated that the avoided cost that results from PRASA's preferential treatment would need to be absorbed by PREPA's other customers. Although PRASA does not consider the preferential rate a subsidy, Ms. Estrada stated that the preferential rate would equate to an approximate \$22 million subsidy.

*Summary of the Testimony of Carlos Lauriano Rivera, Transmission & Distribution.*

Amongst other topics, Mr. Lauriano, during the technical hearing, supported PREPA's need for programs to attract and retain good employees and the restrictions Act 66 places on PREPA, particularly salary negotiations. He also supported PREPA's budget estimates for distribution.

*Summary of the Testimony of Martín Pérez García, Director of Generation.*

Mr. Pérez testified during the technical hearings regarding the causes of outages, including the issue of deferred maintenance, which is impacted by budget issues and the reduction in skilled employees. He also testified regarding limited use facilities, generation plans going forward, and the maintenance contracts for Cambalache and San Juan. He also discussed the role of limited use facilities in modeling. The causes of the outage problem in terms of staff shortages and underspending, were large enough causes that would have existed independent of the AOGP maintenance deferral.

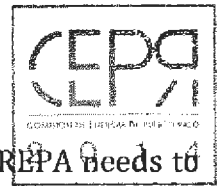
*Summary of the Testimony of Juan Tirado, Director of Operations, Administrator of Generation.*

Mr. Tirado, during the technical hearing, identified the steps of the budget request process for Generation and the effects of underfunding on capital projects. He also provided information about PREPA's reduced frequency of preventive maintenance. He testified regarding the limited use units and the plan for those units going forward. For CapEx this year, Mr. Tirado requested approximately \$115 million and received approximately \$80-\$85 million, this shortfall required deferral of certain activities.

*Summary of the Testimony of Faustino Gonzales Quiles, Director, Transmission and Distribution.*

Mr. Gonzales supported PREPA's operational expenses, particularly labor expenses. He testified during the technical hearing regarding PREPA's loss of skilled employees in the transmission, distribution, and customer service area. PREPA lost close to 1000 long term employees, after Law 66's implementation. Many of these personnel had over 25 years of experience with PREPA. PREPA has also lost many employees due to other retirements and employees leaving to go to other jobs or to the US. He also testified about the budget allocation process for transmission and distribution and about the limitations on hiring contractors caused by union restrictions. Mr. Gonzales also confirmed the 22% reduction in workforce experienced by PREPA and discussed this workforce loss in detail, as well as the restrictions imposed by Act 66. He proposed draft incentives plans that could be imposed





once the Act 66 restrictions are no longer in effect. He also discussed what PREPA needs to do to be able to attract the best employment candidates and retain good employees.

*Summary of the Testimony of Roberto Ortiz-Rivera, Administrator, Transmission & Distribution.*

During the technical hearing Mr. Ortiz supported the distribution budget and answered questions regarding PREPA's system of budget and resource allocation. He also provided an explanation of how PREPA utilizes its distribution budget and provided detail about what expenses would be covered by PREPA's blanket budget.

*Summary of the Testimony of Alvin Román, Superintendent, Transmission & Distribution Planning.*

Mr. Román testified during the technical hearing regarding necessary updates and maintenance to PREPA's system, both mechanical and electrical in nature. He also detailed how PREPA is currently prioritizing repairs and maintenance, and stated that it would take more than ten years to complete all the necessary repairs.

*Summary of the Testimony of Carmen Flores, Customer Service Director.*

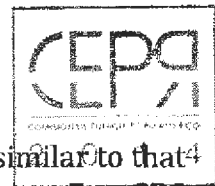
Ms. Flores supported as part of her testimony during the technical hearing PREPA's treatment of customer service and billing issues, and discussed the management structure in the customer service directorate.

## **Commonwealth Energy Public Policy Office**

*Summary of the Testimony of José G. Maeso González, Executive Director.*

Mr. Maeso testimony compared the financial performance of rooftop photovoltaic systems ("PV systems") under the Puerto Rico Electric Power Authority's ("PREPA") current electric service tariff structure with the tariff structure proposed under Case No. CEPR-AP-2015-0001 and two (2) hypothetical alternative rate structures proposed by the CEPPO. The results presented are based in an analysis made by U.S. Department of Energy National Renewable Energy Laboratory (NREL).

The Net Present Value (NPV) of a PV system would be impacted more significantly for the GRS tariff customers, followed by the GSP and GST, in the order of 70% to more than 80% loss. NPV is more sensitive to net charges as the percentage of energy exported increases and as the production-to-consumption ratio approaches 100%. GSS customers are less affected because the proposal does not include a demand charge for this group, their fixed charge is lower than for other business classes and their volumetric charge is already higher. NREL analyzed an alternative tariff proposed by SOEP where demand charges would be discounted in proportion to the energy produced by their PV system and gross consumption charges are



changed to the net consumption portion. This proposal would produce an NPV similar to that<sup>4</sup> for a PV system with the current rate structure for GSP and GST customers. For GRS customers, any charge different from what they currently experience will be detrimental to the NPV of a PV system. Not even moving the CILT and SUBA charges to the net consumption, do much for increasing the PV system value closer to the current one for GRS customers. Therefore, we conclude that any charge to a GRS customer will be against Act 4-2016 mandate of not being an obstacle to the development of renewable energy projects. For the GSP and GST customers, our proposal can contribute to produce a value to the customer similar of what they experience currently.

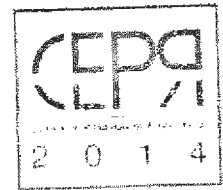
## **Independent Consumer Protection Office**

### *Summary of the Testimony of Guillermo M. Riera, Ph.D.*

The ICPO, through the expertise and testimony of Dr. Guillermo M. Riera, first performed tests to the New Fuel Adjustment Cost Rider ("FCA") using historical and publicly available data. The tests showed the potential of the new formula to overcharge customers because it does not reconcile properly. We compared the true up series with the actual historical series and performed a linear regression analysis to model the potential overcharge. It was recommended that the Commission closely examine this matter and require PREPA to provide test results. Second, the testimony showed that both, PREPA's proposed NEM Credit, and renewable energy contractors' profit, have a direct impact on projects' net present value ("NPV") and simple payback periods ("SPB"). The ICPO recommended that PREPA's NEM Credit may be reduced only to levels that renewable energy contractors' profit reductions (to more reasonable values, closer to 10%) can compensate, in order to maintain renewable energy projects, NPVs and SPBs unchanged. By doing that, a balance of interest is achieved, because the renewable energy sector is motivated to reduce profits to reasonable levels and become more competitive. PREPA does not discourage renewable energy use and may elect to use the new "transparent bill" to show customers the difference between the proposed and approved NEM Credit as a benefit or subsidy to maintain a competitive/robust renewable energy sector; and the economic impact on Non NEM customers' bills is reduced and is maintained to minimum levels.

Lastly, the testimony showed that formula ratemaking ("FRM") designs may weaken due process, are not easy to understand and accept by the public, and do not provide true incentives for cost management and prudence. The ICPO, through the testimony of Dr. Riera, recommended that the Commission to approve a design based on performance with some annual or periodic penalty mechanisms ("APMs").

**CEMEX, Inc.**



*Summary of the Testimony of Enrique Alberto García Morelos.*

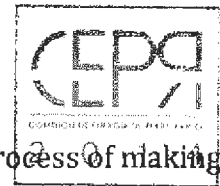
Mr. García testified that CEMEX is the only producer and supplier of cement, concrete and certain aggregates made in Puerto Rico. The Ponce Plant is the largest cement producer on the island, and one of the most important energy consumers within the industrial sector. CEMEX has already made multiple modifications to its production plant, which included the massive reduction of personnel. As Mr. García stated, CEMEX has requested PREPA to review its electric rates since December 2015, but has been denied twice and referred to this proceeding. Mr. García also expressed that CEMEX is in a less competitive position in the market for cement exporting activities and that a reasonable electricity cost would be \$0.14/Kw-hr.

Mr. García also testified that the implications of the proposed rate review, along with the securitization charge and the effect that an increase in oil prices will cause on the PREPA revenues, are enough to destroy the productive activity of the cement industry in Puerto Rico. In general, companies will have to adjust cycles of operation and consider other business models. All of this resulting in a dramatic decrease of the consumption, electrical energy demand, and consequently PREPA revenues. These increases are the perfect formula for the failure of a public monopoly. PREPA has been very conservative in its estimate of decrease in energy demand. For example, CEMEX's exit as a consumer would be equivalent to the exit of more than ten thousand (10,000) Puerto Rican families of the PREPA network immediately. The remainder of the consumer base will experience, without any doubt, further increases to amortize fixed costs, and thus, more and more users will stop their production processes and find new sources of energy generation, shut down of operations, or emigrate from the island.

*Summary of the Testimony of Manuel Reinaldo Valente Agüero.*

Mr. Valente testified about the applicability of the load factor and the challenges to meet the same under the current rate based on energy use. As Mr. Valente affirmed, the cement mill is not operated due to the low sales and does not consume the necessary kilowatts per hour, causing CEMEX to breach the load factor. Mr. Valente expressed that the most recommended scenario to maintain the competitiveness and economic development related to the optimal operation of the plant in Ponce would be to implement a time of use at transmission voltage ("TOU-T") rate. In the alternative, Mr. Valente testified that the best scenario for CEMEX's operation would be the implementation of the LIS rate, modifying the penalty load factor by keeping the 50% of the LIS and high energy usage service at 115 KV - Special ("LIS SR") rates, as previously approved under PREPA Resolution 4036 on September 19, 2013.

Mr. Valente also stated that the proposed rate review could lead to millions of dollars in losses of PREPA revenues. For example, if PREPA does not apply to CEMEX the most competitive rate, CEMEX will need to lower energy consumption in order to maintain operations through the model of a cement importer. Mr. Valente expressed that in August



2016, CEMEX had to import a boat with clinker (i.e., an intermediate in the process of making cement) for the first time in its history.

## **Instituto de Competitividad y Sostenibilidad Energética de Puerto Rico**

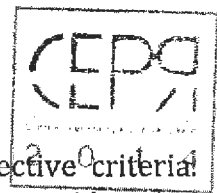
### *Summary of the Testimony of Victor Glass, Ph.D.*

Dr. Glass testified that a filing should be accessible to interested parties. Those reviewing a filing should have confidence that the data underlying the filing is sound. They should be able to assess the quality of forecasts. They should expect that proposed prices are cost causative. Dr. Glass concluded that PREPA's filing failed in all respects. This because it does not follow a standard filing format. Instead, one must dig through the testimonies of experts to understand the nature of the rate-setting process and the proposed rates. PREPA's experts admitted that the underlying data is not of high quality, and crucial data used for allocating costs among services is not available. Also, forecast evaluation is not done in a consistent manner. It appears that energy cost forecasts have been rather poor. The methodology for setting overall rate changes is basically a cost pass-through to customers. Bondholders and PREPA management bear little risk. The large proposed rate increases could cause price-sensitive customers to migrate away from using PREPA's services that could lead to a death spiral. Large industrial customers may be a key market segment that is at risk for seeking alternative sources of energy. The proposed rate structure moves away from peak-load pricing, which could hurt the development of solar generation. Underlying the filing is the big assumption that the bond agreement will actually take effect. At this point, the likelihood of an agreement is unknown.

The threat of bankruptcy appears to have overwhelmed the thinking of PREPA and its consultants. PREPA has not considered selling assets, which could break up its stranglehold on the power business in Puerto Rico and lessen the industry's need for outside financing by PREPA. Other options have not been considered that are less far-reaching. For example, instead of a cost pass-through methodology, internal incentives could be introduced into PREPA to penalize poor management performance. Also, price caps could be considered for adjusting rates. Recognizing that PREPA could become bankrupt very quickly, interim rates are necessary to keep PREPA solvent. However, during this interim period, the Commission and other interested parties need to work with PREPA, if possible, to develop a new filing process and rate design that will be consistent with improving near-term and long-term efficiency and productivity in Puerto Rico's energy market. The new blueprint could include a major redesign of Puerto Rico's energy market and the introduction of a Puerto Rico Universal Service Program for low-income customers.

### *Summary of the Testimony of Ramon J. Cao García, Ph.D.*

Upon examination of documents submitted by PREPA in support of a permanent rate increase in its tariffs, it was found that the documentation was extremely deficient. No information was provided, nor consideration appears to be given, to Marginal Energy Costs, cross-subsidies among PREPA's subsidiaries, and a subjective and arbitrary 5% differential

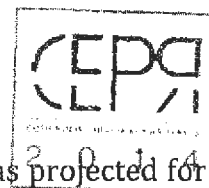


threshold was established for all rates except public lighting, with no objective criteria. Furthermore, in the documents examined, Mr. Cao was not able to find any consideration about economic consequences of proposed rate increases on the local economy, or even on how they are expected to affect the consumption of electricity, and, hence, on PREPA's revenues after a rate increase. To point out the importance of some of the topics not considered in PREPA's petition, the testimony presents an assessment of expected economic consequences of proposed electricity tariff rates increases. The economic topics considered are: (1) consequences of proposed rates on production costs in eight economic sectors, (2) their effect on Puerto Rico's Real GNP and total employment, (3) the impact of proposed new rates on cost of living, and (4) expected consequences on the quantity of electricity demanded.

To estimate expected consequences of PREPA's proposed increases in tariff rates on the industrial sectors of the economy, it was obtained, from the PR Planning Board, the 2013 Input/Output Transactions Matrix. It was found that the most affected sectors are: (1) wholesale and retail trade, with an increase in cost of intermediate inputs of 1.33%; (2) government, with a 1.09% increase; and (3) manufacture, which face an estimated increase of 0.51%. Then, using a regression equation to forecast real GNP, and assuming an increase of 4.2¢ per kWh in the price of electricity (as per PREPA's Schedule H), it was estimated a reduction of 1.05% in real GNP. This decline is additional to the 2.0% decline forecasted by the PR Planning Board for real GNP in fiscal year 2016-2017. An additional 1.05% contraction in real GNP is going to induce a reduction of 11,075 jobs. That would have raised unemployment rate to 13.1%, on the basis of August 2016 statistics. It was further estimated that a 4.2¢ increase in the price of kWh will cause an expected increase of 1.32% in the Consumer Price Index. In consequence, PREPA's proposed rate increase will result in making the general population 2.36% poorer, aggravating conditions created by the general contraction faced by the Puerto Rican economy since fiscal year 2007, including the 2.0% contraction in real GNP forecasted by the Puerto Rico Planning Board for fiscal year 2017. Since net production of electricity declined by 16.7% between fiscal years 2007 and 2016, it is simply unrealistic to assume that the demand for electricity will somehow remain at the level registered in fiscal year 2014, as PREPA's proposal assumes. For that reason, an aggregate demand function for electricity was computed, finding that an average increase of \$0.042 in the price per Kwh, would reduce the quantity demanded by 144.4 million Kwh, or 0.83%. It should be also noted, that a reasonable design for a tariff structure requires for the Utility to know the demand functions corresponding to principal categories of consumers. It appears that PREPA did not tried to get that information.

#### *Summary of the Testimony of Tom Sanzillo and Cathy Kunkel*

The Kunkel-Sanzillo testimony presented a comparison of PREPA's rates to other jurisdictions in order to illustrate that Puerto Rico is an outlier in terms of the level of rates being proposed relative to the local economic condition. We found that PREPA's proposed rates have a much higher level of debt service embedded in the rates of other large U.S. public power entities. We further noted that PREPA's rates are likely to be higher than forecast in 2017 because of the large underestimation of fuel costs. We believe that PREPA's overestimate of future load, the likely inability to meet poorly documented savings goals and



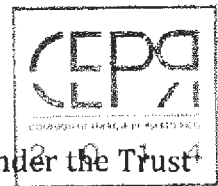
higher debt costs will increase pressure to raise rates beyond what PREPA has projected for future years. We believe it will not be possible to achieve an affordable rate structure without renegotiation of the underlying debt. PREPA, perhaps with the assistance of the PROMESA Board, must renegotiate a better debt deal that is more aligned with economic realities of Puerto Rico. Additionally, we suggest several mechanisms that the Commission could adopt to minimize imprudent expenditures by PREPA, including the oversight model of an Independent Private Sector Inspector General. Our testimony finds that the proposed rate design does not give customers, particularly commercial and industrial classes, the flexibility to lower their own energy costs and to expand the use of renewable energy generation in Puerto Rico. We recommend that open access in transmission and distribution be implemented and that the industrial and commercial tariff designs be weighted less heavily towards demand charges.

While the format of the case before the Puerto Rico Energy Commission has proceeded like a typical rate case in any other jurisdiction, the substance of this case is like no rate case we have seen before. First, a rate case fundamentally requires a certain level of basic trust between a utility and its regulator. The regulator must be able to trust that all budgets and financial information pertinent to the rate request are accurate and will be presented to the Commission without stonewalling. It must be able to trust that the utility's books and records represent a complete picture of the utility's finances. These elements are not present in the current rate case. Regarding PREPA's budget as a whole, Commission's advisors Drs. Fisher and Horowitz noted that "PREPA's provision of documentation to support its capital budget demonstrated gross managerial incompetency" (p. 81) and that "PREPA made so little documentation of the process and values underlying the [operations] budget available to Commission advisors that we have no choice but to consider the budget and the allocation thereof to be, in effect, unsupported" (p. 183).

## **Puerto Rico Aqueduct and Sewers Authority**

### *Summary of the Testimony of Eng. Lynnette Ramírez Rivera.*

Act 50-2013 was enacted to provide a preferential rate to PRASA, first of 0.22 cents per kilowatt-hour for the first 3 years, and then 0.16 cents per kilowatt-hour from fiscal year 2017 on. This is not a subsidy inasmuch the lower rate would come from savings managed by PREPA on its fuel costs. The public policy of the government of Puerto Rico was to pass those savings to the consumer through a lower rate to be charged by PRASA for its services. PRASA's second largest operating cost is precisely the energy cost, which is around 25% of its total operating costs. Furthermore, Act 50-2013 specifically ordered PRASA to use those energy savings to provide a lower residential rate for its customers. On December of 2015, PREPA notified PRASA of the elimination of the preferential rate. Nonetheless, at that time the power and jurisdiction to modify rates has been transferred to the Puerto Rico Energy Commission. Hence, PREPA did not have the power to eliminate the preferential rate, since that power rests with the Energy Commission. To establish the preferential rate, the Energy Commission has to take into consideration the public policy of Act 50-2013 and of Act 57-



2014; the price of natural gas; and the ability of PREPA to pay its obligations under the Trust<sup>4</sup> Indenture that guarantee PREPA's bonds, among others.

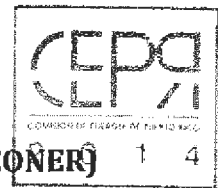
The elimination of a preferential rate for PRASA will have several detrimental effects. First, it will increase PRASA's operational costs. It will also affect PRASA's cost and expense projections. Furthermore, Act 50-2013 contemplated the construction of one or several capital improvement projects with the preferential rate of 16 cents per kilowatt-hour. Since currently PREPA is not charging PRASA this rate, those projects cannot be developed. Act 50-2013 provides that those projects should be of great significance, that they should generate operating efficiencies, that they should consider climate change, and that they provide capacity for future growth, among other factors. Moreover, it will be difficult for PRASA to enter into the bond market to develop its capital improvement projects. Finally, the current PRASA's rate was established taking into consideration PREPA's preferential rate. Thus, if the preferential rate is not put into full force and effect, PRASA would have to consider, as one of its options, a possible increase on its current rates.

## **Windmar**

### *Summary of the Testimony of Víctor González, President of Windmar.*

In summary, Windmar Group's Testimony was given by its President Mr. Víctor González whom finds the Petition to fall short of meeting Act 57 of 2014's legal mandates and to be contrary to public policy on renewable energy. Víctor González Testimony provides suggestions to the Commission and PREPA regarding rate alternatives that should be considered as part of PREPA's new tariffs. Battery storage, distributed generation, ancillary services provided by renewables and electric cars are upon us and need to be considered now. The suggestions presented in the testimony can help modernize PREPA's grid and move Puerto Rico towards clean energy, conservation, efficiency, reducing fossil fuels, demand response management and promoting localized energy generation by its customers. All of which are required under Act 57-2014.

Regarding PREPA's Petition, the testimony also criticizes PREPA's proposal upon Net Metering Customers and the cost causation and gradualism methods applied by PREPA. Regarding Net Metering he makes reference to legal statutes that were ignored by PREPA's Petition, particularly Act 57-2014, Act 4-2016 and Act 114-2007 and illustrates the lack of evidence to support PREPA's proposed changes to net metering. His testimony is based on years of experience integrating renewables to PREPA's grid. His projects extend from large utility scale photovoltaic systems, including the first ever built on the island, down to industrial, commercial and hundreds of solar distributed generators. Currently Víctor González has installed over 37 megawatts of renewable energy holding 35 of those in their portfolio, consolidating them as an industry leader.



## **Puerto Rico Renewable Energy Contractors & Consultants Association (ACONER)**

### *Summary of the Testimony of Edward Previdi, President of ACONER.*

This testimony was presented by Eng. Edward Previdi as President of the Puerto Rico Renewable Energy Contractors & Consultants Association (ACONER). ACONER pursued to enter in this rate review process as an intervenor in order to offer with the primary objective of avoiding that this industry is adversely affected with a new rate structure. From the inception of Act 114 of 2007, which ordered PREPA to establish a net-metering program, Puerto Rico's government policy has been of support to the integration of distributed renewable energy sources. Act 114-2007, as amended by Act 4-2016, specifically states that PREPA and the Puerto Rico Energy Commission (PREC), when proposing and evaluating charges to net metering customers, shall take into account that they are not "excessive or established in such a manner as to constitute an obstacle to the implementation of renewable energy projects". The intention of the rate review legislation was to establish a just and reasonable structure, at the lowest possible cost for all customers but that it would never negatively affect the renewable energy industry.

The viability of the distributed renewable energy market directly depends on the net-metering credit provided by PREPA. PREPA's rate proposal negatively affects the viability of a customer to implement capital improvements through renewable energy sources. Two tendencies, both with the net result of reducing the net-metering credit, stand out: (1) it is proposed that the CILT and Subsidies segregated charges would not be applied to the net-metering credit, and (2) on the four main categories the intended rate structure is one in which the fixed costs, or demand charges, are dramatically increased. A Return-On-Investment (ROI) analysis acquisition of a DG system by customers for the four main categories showed that the application of the credits to net-metering customers as proposed by PREPA would negatively add years to the ROI, ranging from 1.9 years for the acquisition of a system by a GSS customer to 4.4 years by a GSP customer. In order to minimize the negative impact in the renewable distributed energy market, ACONER recommends the following changes to the proposed rate structure: (1) Charges for CILT and subsidies would be billed for net consumption; (2) the basic fixed charges for GRS and GSS would remain the same as under the existing rate structure and the proposed energy consumption rates shall be adjusted accordingly; and (3) the demand charges for GSP and GST shall be kept at the current levels, and the energy consumption charge adjusted accordingly. Besides minimizing the negative impact on renewable energy projects, the basic reasons for those proposed changes to this rate review are: (1) DG penetration in the grid is still at a minimum level; (2) PREPA would still have the opportunity to propose changes in the way DG systems are treated in future rate review processes; (3) the reduction of energy consumption rates by increasing fixed and demand charges would result in discouraging energy efficiency and conservation measures by the customers; (4) although one of PREPA's argument for the proposed treatment to distributed renewable generation is to minimize the effect of remaining customers "subsidizing" net metering customers, ACONER's own calculations using data provided by PREPA show that such impact would actually be minimal; and (5) a series of benefits to the environment, health, etc., which are obtained by generating clean energy as an alternative to fossil fuels, have not been quantified. ACONER therefore





recommended a comprehensive study to quantify the benefits for PREPA, and for the public,<sup>4</sup> of distributed generation with renewable energy sources.

*Summary of the Testimony of Vicente Feliciano, expert witness of ACONER.*

PREPA needs to pay for its operating expenses, new investments and financial expenses. Anything beyond this is a tax on electricity consumption. PREPA is requesting the PREC \$503 million to pay for the RSA plus \$314 million to pay for the debt that is not part of the RSA for a total of \$817 million in annual financial costs. The argument is that a government-owned utility should be assigned whatever it needs to pay its debts and that rates should increase to whatever it takes to pay such debt. Under normal circumstances, this would be the case but Puerto Rico is currently anything but normal. An investor-owned utility shall be assigned by a regulator what is known as a cost of service finance allocation. This would be the assets of the utility times a reasonable rate of return. In the case of PREPA, it would be \$6,782 million in assets times 7.8% cost of capital. This 7.8% is the average cost of capital assigned to U.S. utilities over the last five years. The total would amount to \$529 million per year. The difference between the \$817 million to pay for whatever is owed and the \$529 million that would be the reasonable financial cost of an investor-owned utility is a tax on electricity consumption. The tax on electricity consumption would be \$288 million per year.

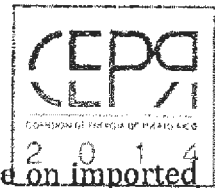
Supporting renewable energy is the stated policy of the Government of Puerto Rico. Some adjustments should be made. Renewable energy has benefits that are not incorporated into the net metering credit. These relate to the environment, health and others. And yet, there was not an attempt by the advisors to the Commission to incorporate this consensus into the net metering credit. One option would be to offer net metering clients credit for subsidies to residences and the irrigation district in lieu of environmental and health credits. The issue of the transition charge, related to debt to pay for fixed assets that are either not used by the net metering customers or used on a limited basis, is something that the Commission should revisit.

**Sunnova**

*Summary of the Testimony of Steven Gabel.*

Sunnova sponsored the testimony of Steven Gabel. Mr. Gabel's pre-filed testimony reviewed certain tariff and policy recommendations proposed by PREPA with respect to a) their reasonableness from a ratemaking perspective; b) their impact on the development of renewable resources in the PREPA service territory; and c) their consistency with established Puerto Rico and national energy policy. Mr. Gabel recommended various adjustments to PREPA's petition including:

- 1) Current Net Energy Metering (NEM) should continue and the Commission should make no changes to NEM. The proposed change in NEM policy will deter development of on-site renewable energy as a "home grown" clean source of free



fuel energy for the Commonwealth, while lessening the dependence on imported fossil fuel and inhibiting efforts to diversify the Commonwealth's energy supply.

- 2) The Commission should carefully evaluate and restrict proposals from PREPA to move its tariff to a greater proportion of revenue through fixed charges, as counter to both cost of service principles and the Commission's mandate to promote renewable energy and energy efficiency.

Finally, Mr. Gabel recommended that the Commission should conduct a more expansive review of PREPA's structure and ratemaking. He recommended that the Commission should consider broader changes to industry structure and ratemaking that would transition the power system to one that is more reliable; stabilizes and reduces energy costs; promotes development of renewable energy, energy efficiency and other advanced clean energy technologies; attracts private sector investment; and increases economic activity.

### **Chamber of Commerce**

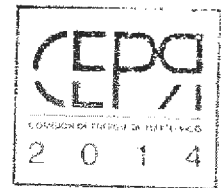
#### *Summary of the Testimony of Eng. Gerardo Cosme Núñez.*

The Chamber of Commerce witness testimony served to present an assessment of the perception of some aspects about the rate review. The testimony states that the proposed distribution of revenue requirements presented by PREPA is not just and reasonable and that the Commission should consider other income sources from the commercial and industrial sectors, aside from the energy charge, in order to develop a Cost of Service Study. Also the witness expresses that there is no clear indication as to how PREPA projected its revenues from 2014 to 2017.

### **Builders Association "ACPR"**

#### *Summary of the Testimony of Emilio Colón Zavala.*

The testimony of Mr. Colón Zavala served to expose and submit to the Commission, from ACPR's perspective, the impact of the tariff review proposal over the development, planning and financing of formal housing, within the jurisdiction of Puerto Rico. This in light of the legal and economic context ACPR deem pertinent and relevant, particularly to the development of low-income housing.



## **Hospital Association "AHPR"**

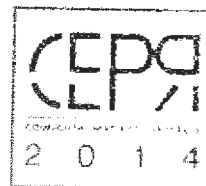
### *Summary of the Testimony of Jaime Gregorio Plá Cortés.*

The testimony of Mr. Plá Cortés served to present the implications of matters deriving from the rate review together with the "hijack" fee proposed by PRPEA, which, in AHPR's opinion, and as to what is reflected in the documentation received by its members, would entail significant increases in non-refundable costs at a time when said industry is in the fragile situation of providing health services in Puerto Rico. In the case of the hospitals and health services, they will not be able to pass on this increase. In an industry that is so competitive that can barely cover costs, an increase would cause it to incur further losses.

## **Manufacturer's Association "AIPR"**

### *Summary of the Testimony of Rodrigo Masses and Artze.*

Mr. Masses and Artze testimony responds to the need of proving the future effects of the distribution of costs proposed in the manufacturing sector of Puerto Rico, to establish the potential impact of the rate revisions as proposed in the economic development of the country and the non-compliance of Law 57 of May 22, 2014, known as the "Law of Transformation and Energy RELEIF of Puerto Rico" (hereinafter law 57-2014).



## Summary of Public Comments

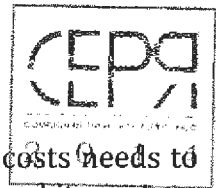
To maximize public participation and insight to the process, the Commission held four (4) public hearings during the initial phases of the proceeding. To provide further access to interested parties, all hearings were held in Spanish, three (3) hearings were held outside the metropolitan area and one (1) in San Juan, during flexible hours, and were also live streamed and recorded. The first hearing was held on September 10, 2016 in the City of Mayagüez. A total of nine (9) participants deposed before the Commission. The second public hearing was held on September 12, 2016 in the City of Ponce. A total of eight (8) participants deposed before the Commission. The third hearing was held on September 13, 2016 in the City of Humacao. One (1) participant deposed before the Commission during this hearing. The fourth and last hearing was held on September 14, 2016 in the City of San Juan with a total of ten (10) participants deposing before the Commission.

During these hearings, the Commission heard comments from the public regarding a long list of concerns, which included the following issues.

There was a common and general discomfort and negative perception of PREPA's management and performance. Citizens were generally concerned that an increase in rates, without significant restructuring and changes in management practices, will perpetuate the current precarious fiscal and structural situation of the utility. Overall, the citizens' discomfort and apprehensions are not related to a specific part of PREPA's Petition for Rate Review, but with distrust, a result of years of poor decision making, bad management, political influence and lack of planning. In their perspective, moving forward, mechanisms need to be implemented to hold PREPA accountable for its actions. Additionally, as expressed by the organization *Espacios Abiertos*, there needs to be transparency in the information presented by PREPA as part of their Petition. They requested that PREPA clearly explain how the proposed revenue requirement will be used to improve PREPA's operations, efficiency and the overall performance of the organization, given that as proposed it would result in a rate increase for the consumers.

In improving their performance and securing additional savings to reduce the costs of operating the utility, as part of the comments and recommendations presented to the Commission, citizens expressed that PREPA could continue to make operational savings by reducing the number of external legal and consulting contracts and using their internal personnel. *Espacios Abiertos* expressed that even though specialized consulting is warranted, Puerto Rico and PREPA's fiscal situation does not merit the elevated consultation costs incurred by PREPA.

Also, citizens argued that, in reviewing PREPA's Petition, the Commission cannot limit itself to perform an economic analysis, which only secures revenues to sustain the utility and address its financial obligations. Citizens agree that the Commission needs to perform an evaluation of social needs, which includes an analysis of factors that guarantee the social development of the Island, while it addresses Puerto Rico's electric energy needs. The foregoing in the context that the current social and economic conditions of Puerto Rico's



citizens cannot sustain an increase in rates and therefore, the distribution of costs needs to consider the overall impact such increase will have on Puerto Rico's economy and its society. Citizens agree that the burden of restructuring PREPA and taking it to fiscal stability should not be carried by the citizens, but that the utility's management and government should be held accountable for the current situation.

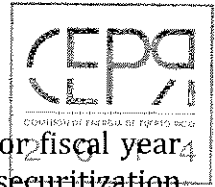
Many deponents also address the need to integrate renewables into PREPA's system. Citizens expressed that the Commonwealth's current energy policy promotes the integration of renewables, which so far has been hindered by PREPA. Citizens stressed that the integration of renewables is fundamental to the development of Puerto Rico's electric energy system and that the social benefits provided by such integration surpass the renewable energy system costs. It was expressed that no additional charges should be applied to net metering clients to promote and incentivize the integration of renewables. Therefore, deponents argued that while the current penetration of renewables is minimal, the costs associated with it should be distributed to other customers. They understand this way Puerto Rico's public policy is accomplished and the distribution of costs is warranted by the benefits provided by the integration of renewables.

Finally, National Public Finance Guarantee Corporation ("National") expressed its concern with regards to PREPA's revenue requirement not including the part of PREPA's legacy debt included in the Restructuring Support Agreement ("RSA").<sup>348</sup> Specifically, National expressed its concern regarding the current status of the transition charge<sup>349</sup>. As part of the agreement, several conditions and milestones set forth in the RSA need to be met, and accordingly none of those bonds have yet been defeased as part of the securitization. National's concern arises from PREPA's testimony expressing that there is a high probability that the securitization will not happen before the Commission issues its final order in the instant case. Therefore, National requests that the Commission account for all PREPA's

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<sup>348</sup> National submitted its letter to the Commission after the evidentiary hearing had ended. National was not an intervenor in the proceeding; therefore, other parties had no opportunity to question National witnesses. Under these circumstances, the Commission therefore cannot treat National's submission as technical evidence. The Commission has, however, taken into account bondholder concerns by including in its revenue requirement a reasonable projection of legacy debt and coverage ratio in this proceeding, and by approving the Calculation Methodology and Adjustment Mechanism in the Transition Charge proceeding. When the bondholders and PREPA reach an agreement on the amount of debt to be recovered through the Transition Charge, the Commission will be prepared, on request, to make appropriate adjustments to PREPA's revenue requirement.

<sup>349</sup> The calculation methodology and adjustment mechanism for the transition charge was approved by the Commission on June 21, 2016 in docket number CEPR-AP-2016-0001. This transition charge mechanism is designed to reduce costs for PREPA's customers. Bondholders holding approximately \$7.170 billions of existing PREPA debt, with an estimated weighted average interest rate of 5.86 percent, have agreed to reduce that debt. By means of the transition charge, the existing debt will be replaced by "Restructured Debt".



currently non-defeased debt obligations<sup>350</sup> in PREPA's revenue requirement for fiscal year 2017 and corresponding base rates. National recommends that once the securitization process becomes effective, the base rates can be adjusted downward to reflect the discount achieved through the restructuring.<sup>351</sup>

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<sup>350</sup> Debt held by creditors participating in the securitization and creditors not participating in the securitization.

<sup>351</sup> While it is true that the debt that has not been defeased through the securitization process is still part of PREPA's obligations, which must be covered by its rates, it is also true that while the RSA is still in effect, PREPA's obligation to pay such debt is deferred. It is such deferral of the obligation that exempts PREPA from including the debt comprised in the RSA in the revenue requirement for fiscal year 2017 ("FY2017"). Therefore, although both presumptions are true (that the debt is still PREPA's obligation, but there is no obligation to pay for it in 2017) there is a common overall expectation recognized by PREPA and intervenors participating in this proceeding that the restructuring of the debt, as set forth in the RSA, will proceed. Consequently, for the purpose of the revenue requirement for FY2017, the Commission assumes that the payment for the debt included in the RSA is not an expected expense for 2017.



# Attachment 1: Determination of Total Revenue Requirement and Change<sup>1</sup> in Base Rates

Puerto Rico Electric Power Authority  
Determination of Total Revenue Requirement and Change in Base Rates  
(Thousands of Dollars)

Commission Attachment 1  
Page 1 of 1

Line No.	Description	PREPA Proposed FY2017 (A)	Commission Adjustments (B)	Total Adjusted Results (C)	Base Rates: Commission Adjusted Results (D)	Adjusted FY2017 Fuel and Purchase Power Adjustor Revenue & Expense (E)
1	Operating Expenses					
2	Fuel	\$ 655,968	\$ 461,305	\$ 1,117,273		\$ 1,117,273
3	Purchased Power	\$ 819,907	\$ -	\$ 819,907		\$ 819,907
4	Generation Expenses	\$ 122,411	\$ 30,549	\$ 152,960	\$ 152,960	
5	Transmission Expenses	\$ 34,222	\$ 3,914	\$ 38,136	\$ 38,136	
6	Distribution Expenses	\$ 169,277	\$ 19,004	\$ 188,281	\$ 188,281	
7	Customer Billing Expenses	\$ 84,945	\$ 389	\$ 85,334	\$ 85,334	
8	Administrative and General Expenses	\$ 140,897	\$ (16,602)	\$ 124,295	\$ 124,295	
9	Bad Debt Expense	\$ 85,384	\$ 12,000	\$ 97,384	\$ 97,384	
10	Energy Administration Assessment	\$ 5,000	\$ (5,000)	\$ -	\$ -	
11	Subtotal Operating Expenses	\$ 2,126,811	\$ 504,759	\$ 2,631,570	\$ 694,390	\$ 1,937,180
12						
13	Subsidies					
14	Energy Administration Assessment		\$ 5,000	\$ 5,000	\$ 5,000	
15	Contribution to Municipalities (CILT)	\$ 51,784	\$ -	\$ 51,784	\$ 51,784	
16	Public Lighting	\$ 93,241	\$ -	\$ 93,241	\$ 93,241	
17	Special Customer Subsidies	\$ 75,071	\$ (37,170)	\$ 37,901	\$ 37,901	
18	Subtotal Subsidies	\$ 220,096	\$ (31,370)	\$ 188,726	\$ 188,726	
19						
20	Debt Service (Principal & Interest)	\$ 314,390	\$ -	\$ 314,390	\$ 314,390	
21	Debt Service Coverage		\$ 125,756	\$ 125,756	\$ 125,756	
22	Subtotal Debt Service and Coverage	\$ 314,390	\$ 125,756	\$ 440,146	\$ 440,146	
23						
24	Ratepayer Funding of Capital Expenditures	\$ 336,558	\$ (183,096)	\$ 153,462	\$ 153,462	
25						
26	Subtotal PREPA Base Rate Revenue Requirement	\$ 2,997,855	\$ 416,049	\$ 3,413,904	\$ 1,476,724	
27						
28	Revenue and Other Income					
29	Other Income	\$ (38,925)	\$ -	\$ (38,925)	\$ (38,925)	
30	Fuel and Purchased Power Adjustor Revenue	\$ (1,658,287)	\$ (461,305)	\$ (2,119,592)	\$ (182,412)	\$ (1,937,180)
31	Base Rate Revenue at Current Rates	\$ (1,078,387)	\$ -	\$ (1,078,387)	\$ (1,078,387)	
32	Subtotal Revenue and Other Income	\$ (2,775,599)	\$ (461,305)	\$ (3,236,904)	\$ (1,299,724)	\$ (1,937,180)
33						
34	PREPA Base Rate Revenue Deficiency (Excess)	\$ 222,256	\$ (45,256)	\$ 177,000	\$ 177,000	\$ -
35						
36	PREPARC Securitization (Transition Charge) Revenue Requirement - Note (b):					
37	Debt Service for Securitization	\$ 394,237	\$ -	\$ 394,237		
38	Gross-Up for Collections Lag and Uncollectible Revenue	\$ 109,027	\$ -	\$ 109,027		
39	PREPARC (SPV) Revenue Requirement	\$ 503,264	\$ -	\$ 503,264		
40						
41	Total PREPA and PREPARC Revenue Requirements	\$ 3,501,119 (a)	\$ 416,049	\$ 3,917,168		

## Notes and Source

Col.A: PREPA Schedule A-1 REV with reclassification of selected items for presentation clarity

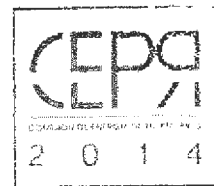
(a) PREPA shows this amount on its Schedule A-1 REV net of PREPA's Other Income:

Total PREPA and PREPARC Revenue Requirements	\$ 3,501,119	Line 40
Other Income	\$ (38,925)	Line 28
Total PREPA and PREPARC Revenue Requirements per PREPA	\$ 3,462,194	PREPA Schedule A-1 REV

(b) The method for determining the PREPARC revenue requirement for the new securitized bonds to be issued and the method for determining the Transition Charge rates related to that was addressed and approved by the Commission in Case No. CEPR-AP-2016-0001.

Col.B: See Commission Attachment 2 for a summary of adjustments and Commission Attachment 3 for additional details.

Cols. D and E: The Commission has determined that PREPA's fuel and purchased power expenses will be collected through the fuel and purchased power adjustors.



## Attachment 2: Summary of Commission Adjustments to FY2017 Revenue Requirement

Puerto Rico Electric Power Authority  
Summary of Commission Adjustments to FY2017 Revenue Requirement

Commission Attachment 2  
Page 1 of 1

(Thousands of Dollars)

Line No.	Description	Total Commission Adjustments (A)	Debt Service Coverage Ratio Margin (3)	Ratepayer Contributions for FY2017 CapEx Funding (2)	Reclassification of FY2017 CapEx to Generation Maint. Exp. (3)	Special Customer Subsidies Double Count (4)	Fuel Expense Forecast (5)	Operating Expense Needed for Safe & Reliable Operation (6)	Fines and Penalties Expense Not Incurred (7) Note A	Bad Debt Expense (8) Note B	Recreation Fee Revenue Held to Cost (9)	Subsidies and Expenses (10)
1	Operating Expenses											
2	Fuel	\$ 461,305					\$ 461,305					
3	Purchased Power	\$ -										
4	Generation Expenses	\$ 10,519			\$ 16,000			\$ 14,175			\$ 374	
5	Transmission Expenses	\$ 3,914						\$ 3,839			\$ 185	
6	Distribution Expenses	\$ 19,604						\$ 18,487			\$ 517	
7	Customer Billing Expenses	\$ 109									\$ 260	\$ 129
8	Administrative and General Expenses	\$ (16,402)						\$ (17,057)			\$ 455	
9	Bad Debt Expense	\$ 12,000								\$ 12,000		
10	Energy Administration Assessment	\$ (5,800)										\$ (5,800)
11	Subtotal Operating Expenses	\$ 504,759	\$ -	\$ -	\$ 16,000	\$ -	\$ 461,305	\$ 19,414	\$ -	\$ 12,000	\$ 1,711	\$ (5,671)
12												
13	Subsidies											\$ 5,800
14	Energy Administration Assessment	\$ 5,800										
15	Contributions to Municipalities (CMT)	\$ -										
16	Public Lighting	\$ -										
17	Special Customer Subsidies	\$ (37,170)				\$ (37,641)						\$ (129)
18	Subtotal Subsidies	\$ (37,170)	\$ -	\$ -	\$ -	\$ (37,641)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (129)
19												
20	Debt Service (Principal & Interest)	\$ -										
21	Debt Service Coverage	\$ 125,756	\$ 125,756									
22	Subtotal Debt Service and Coverage	\$ 125,756	\$ 125,756	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,561
23												
24	Ratepayer Funding of Capital Expenditures	\$ (183,096)		\$ (183,096)								
25												
26	Subtotal PREPA Base Rate Revenue Requirement	\$ 410,249	\$ 125,756	\$ (183,096)	\$ 16,000	\$ (37,641)	\$ 461,305	\$ 19,414	\$ -	\$ 12,000	\$ 1,711	\$ (259)
27												
28	Revenue and Other Income											
29	Other Income	\$ -										
30	Fuel and Purchased Power Adjustor Revenue	\$ (461,305)					\$ (461,305)					
31	Base Rate Revenue at Current Rates	\$ -										
32	Subtotal Revenue and Other Income	\$ (461,305)	\$ -	\$ -	\$ -	\$ -	\$ (461,305)	\$ -	\$ -	\$ -	\$ -	\$ -
33												
34	PREPA Base Rate Revenue Deficiency (Excess)	\$ (51,056)	\$ 125,756	\$ (183,096)	\$ 16,000	\$ (37,641)	\$ -	\$ 19,414	\$ -	\$ 12,000	\$ 1,711	\$ (259)
35												
36	PREPARG Securitization (Transition Charge) Revenue Requirement											
37	Debt Service for Securitization	\$ -										
38	Cross-subsidy for Collections Lag and Uncollectible Revenue	\$ -										
39	PREPARG (SPV) Revenue Requirement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40												
41	Total PREPA and PREPARG Revenue Requirements	\$ 410,249	\$ 125,756	\$ (183,096)	\$ 16,000	\$ (37,641)	\$ 461,305	\$ 19,414	\$ -	\$ 12,000	\$ 1,711	\$ (259)

### Notes and Source

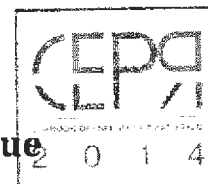
Ord. A: Sum of Adjustments accepted by the Commission

Columns (1) through (10): See Commission Amendment 3 (which updates fourth and fifth Ex. 5 for the Commission's decisions). The Commission's decision about Recreation Fee Revenue is reflected in column 9 and on Commission Attachment 3, page 9.

Note A: PREPA indicated during the hearing that it had not included any amount for fines or penalties in its FY2017 base revenue requirement so there is no need for this adjustment.

Note B: Updated for the impact of the Commission's decisions on other adjustments.





## Attachment 3: Commission Adjustments to FY2017 Revenue Requirements

Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

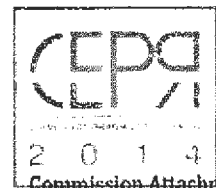
Commission Attachment 3  
Page 1 of 10

Reflect Debt Service Coverage  
(Thousands of Dollars)

Line No.	Description	Amount (A)	Reference
	<b>Calculation of Debt Service Coverage</b>		
1	PREPA Debt Service (Principal and Interest)	\$ 314,390	PREPA Schedule A-1 REV
2	Debt Service Coverage Ratio	1.4 x	Commission Advisor Hill
3	Debt Service Coverage	<u>\$ 440,146</u>	
	<b>Summary</b>		
4	PREPA Debt Service (Principal and Interest)	\$ 314,390	Line 1
5	Debt Service Coverage Margin	\$ 125,756	Line 3 - Line 1
6	<b>Total Debt Service and Debt Service Coverage</b>	<u>\$ 440,146</u>	
7	<b>Adjustment to Provide for 1.4x Debt Service Coverage Margin</b>	<u>\$ 125,756</u>	Line 5

### Notes and Source

This adjustment is to recognize a Debt Service Coverage Ratio (DSCR) margin based on the DSCR recommendation of Commission Advisor Stephen Hill



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

Page 2 of 10

Adjust Amount of Ratepayer Contributions for FY2017 Capital Expenditure Funding  
(Thousands of Dollars)

Line No.	Description	Amount (A)	Reference
1	PREPA Requested Ratepayer Funding of FY2017 Capital Expenditures	\$ 336,558	PREPA Schedule A-1 REV
2	Commission Advisor Adjustments Adjust for amount recognized in DSCR Margin	\$ (125,756)	Note A
3	Limit Ratepayer Funding of Aguirre Offshore Gas Port (AOGP) in FY2017 to amount approved in the Commission's IRP Order	\$ (41,340)	Note B
4	Adjust PREPA FY2017 Capital Expenditures for Meters (PIV 16677)		Note C
Reclassify Certain PREPA Capital Expenditures as Generation O&M Expense:			
	<u>PREPA PIV #</u> <u>Description</u>		
5	15880      Major Inspection "C" Unit 1-3 Cambalache	\$ (4,000)	Note D
6	16945      Combined Cycle Improvement U-5 San Juan Steam Plant	\$ (6,000)	Note D
7	16946      Combined Cycle Improvement U-6 CSJ	\$ (6,000)	Note D
8	Total Commission Advisor Adjustments to Ratepayer Funding of FY2017 CapEx	\$ (183,096)	Sum of lines 2 through 6
9	Adjusted Ratepayer Funding of PREPA FY2017 Capital Expenditures	\$ 153,462	Note E

Notes and Source

This adjustment reflects Commission Advisor adjustments to the amount of PREPA's requested FY2017 ratepayer funding of Capital Expenditures

[A] A portion of PREPA's proposed FY2017 Capital Expenditures is covered by the DSCR margin recommended by Commission Advisor Hill. See page 1 of this schedule.

[B] Commission Advisors Fisher and Horowitz recommend limiting FY2017 capital expenditures for the AOGP to the amount allowed in the Commission's IRP Order:

	Amount in Dollars	Reference
PREPA Proposed FY2017 Capital Expenditures for AOGP	\$ 56,339,808	PREPA Schedule F-3 REV
AOGP capital spending authorized in the Commission's IRP Order	\$ 15,000,000	Fisher/Horowitz Expert Report
FY2017 AOGP capital expenditure adjustment	\$ 41,339,808	Fisher/Horowitz Expert Report

[C] Commission Advisors Fisher and Horowitz recommend limiting PREPA's Capex for FY2017 capital expenditures from capital to exclude an amount of costs that is estimated for AMI meters. The Commission did not accept that adjustment.

[D] Commission Advisors Fisher and Horowitz recommend reclassifying certain FY2017 capital expenditures from capital to generation O&M. This reflects such reclassification of the following PREPA proposed FY2017 capital expenditures:

[E] Having current year ratepayer funding of PREPA's Capital Expenditures is not recommended as a permanent component of PREPA's revenue requirement methodology. As explained in the Hill and Smith/Dady reports, including this as a component of PREPA's base rate revenue requirement should only continue until PREPA has restored financial viability and can access external capital markets at reasonable cost to finance its CapEx. At that point, PREPA debt service and a DSCR would continue to be included in the determination of PREPA's base rate revenue requirement, and the special ratepayer-funding of CapEx would cease.



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Commission Adjustments to FY2017 Revenue Requirements

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Reflect Reclassification of Certain PREPA Proposed FY2017 Capital Expenditures to Generation Maintenance Expense  
(Thousands of Dollars)

Line No.	Description	Amount (A)	Reference
Reflect Reclassification of Certain PREPA Proposed FY2017 Capital Expenditures to Generation Maintenance Expense to Increase Generation Maintenance Expense			
	<u>PREPA Project (PIV)</u>		
1	15880 Major Inspection "C" Unit 1-3 Cambalache	\$ 4,000	Note A
2	16945 Combined Cycle Improvement U-5 San Juan Steam Plant	\$ 6,000	Note A
3	16946 Combined Cycle Improvement U-6 CSJ	\$ 6,000	Note A
4			
5	Increase to Generation Maintenance Expense for Reclassification	<u>\$ 16,000</u>	

**Notes and Source**

This adjustment reflects Commission Advisor adjustments to the amount of PREPA's requested FY2017 ratepayer funding of Capital Expenditures

[A] Commission Advisors Fisher and Horowitz recommend reclassifying certain FY2017 capital expenditures from capital to generation O&M. This reflects such reclassification of the PREPA proposed FY2017 capital expenditures listed above

Additional source for dollar amounts: PREPA Schedule F-3 REV



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

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Remove Double-Count of Special Customer Subsidies and Revenue at Current Rates  
(Thousands of Dollars)

Line No.	Description	Amount (A)	Reference
	<b>Special Customer Subsidies</b>		
1	General Agricultural Service Tariff	\$ (525)	Note A
2	Low-Income Consumer Subsidies (RH3, LRS), and	\$ (16,439)	Note A
3	Fixed Public Housing Rate (RFR Tariff)	\$ (20,077)	Note A
4	Adjustment to Special Customer Subsidies	<u>\$ (37,041)</u>	Notes A and B

**Notes and Source**

[A] This adjustment reflects an adjustment identified by Commission Advisor Chernick to remove a double-count identified in PREPA's filing of certain Special Customer Subsidies and Revenue at Current Rates.

Commission Advisor Chernick has identified the following double counts in his detailed review of PREPA's proposed Special Customer Subsidies and PREPA's revenue at existing rates:

Amount (in dollars)	Rates Affected by the Rate Discount
\$524,933	for the General Agricultural Service Tariff,
\$16,438,851	for Low-Income Consumer Subsidies (RH3, LRS), and
\$20,076,641	for the Fixed Public Housing Rate (RFR Tariff)
<u>\$37,040,425</u>	Total amount counted by PREPA in Special Customer Subsidies and reflected by PREPA in revenue at current rates

[B] An alternative way of removing the impact of the double-count identified by Commission Advisor Chernick would be to add the dollar amount identified above to PREPA's base rate revenue at current rates.



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

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Adjust Fuel Expense Forecast  
(Thousands of Dollars)

Line No.	Description	Amount (A)	Reference
1	Fuel Expense	\$ 461,305	Note A
2	Fuel Adjustor Revenue	\$ (461,305)	Note B
3	Net Impact on Base Rate Revenue Requirement	\$ -	Notes A and B

Notes and Source

- [A] This adjustment reflects an adjustment to Fuel Expense recommended by Commission Advisors Horowitz and Fisher
- [B] Because PREPA's Fuel Adjustor will be recovering fluctuations in Fuel Expense via its Fuel Adjustor an equal amount is being added to Fuel Revenue. Currently, PREPA's Fuel Adjustor recovers more than the Fuel Expense due to the inclusion of a 0.89 factor in the denominator; however, under both PREPA's recommendation and the Commission Advisors' recommendations, that factor (for CILT) is being removed from PREPA's Fuel (and Purchased Power) Adjustors, prospectively, effective with the new base rates established in the current PREPA rate case.
- [C] The Commission has determined that PREPA will recover its Fuel Expenses through the Fuel Adjustor and its Purchased Power Expenses through the Purchased Power Adjustor, rather than recovering a base amount of Fuel and Purchased Power Expense through Base Rates.



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

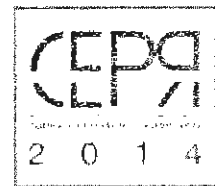
Commission Attachment 3  
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Adjust Operating and Maintenance Expense for Synapse Recommended Levels for Safe and Reliability Operation of the Electric Utility  
(Millions of Dollars)

Line No.	Description	Labor Expense (A)	Non-Labor Expense (B)	Total Operating Expenses (C)
1	Generation Expense	\$ 9.680	\$ 4.495	\$ 14.175
2	Transmission Expense	\$ 3.330	\$ 0.479	\$ 3.809
3	Distribution Expense	\$ 16.115	\$ 2.372	\$ 18.487
4	Administrative and General Expense	\$ (17.057)		\$ (17.057)
5	Net Impact on Base Rate Revenue Requirement	<u>\$ 12.068</u>	<u>\$ 7.346</u>	<u>\$ 19.414</u>

**Notes and Source**

- [A] This adjustment reflects an adjustment to PREPA's proposed FY2017 Operating Expenses recommended by Commission Advisors Horowitz and Fisher to assure that there is an adequate O&M Expense budget for the safe and reliable operation of the electric system



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

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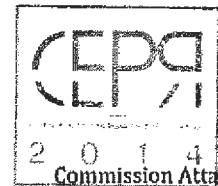
Remove Budgeted FY2017 Expense Amount for Fines and Penalties  
(Millions of Dollars)

Line No.	Description	Operating Expense Adjustment	Reference
1	Administrative and General Expense	<u>Note A</u>	PREPA Response to CEPR-Rs-05-31

**Notes and Source**

PREPA's response to CEPR-RS-05-31 indicates that for FY2017 PREPA budgeted \$624,446 in account 923 for the concept of stipulated fines and penalties that may occur for non-compliance with federal and state environmental laws and regulations. PREPA's response to CEPR-RS-05-32, however, indicates that for FY2017 PREPA has not received any notifications of related to environmental deviations or other matters.

**Note A:** PREPA indicated during the hearing that it had not included any amount for fines or penalties in its FY2017-based revenue requirement, so there is no need for this adjustment.



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

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Bad Debt Expense  
(Thousands of Dollars)

Line No.	Description	Amount (A)	Reference
	<b>Commission Advisor Adjustments to Net Revenue Requirement</b>		
1	Total Commission Advisor Adjustments on Net Revenue Requirement	\$ 404,049	See below
2	Uncollectible Factor	2.97%	PREPA Filing Detail
3	Bad Debt Expense	\$ 12,000	Note A

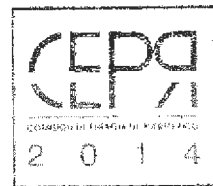
**Notes and Source**

This adjustment is to recognize the impact on Bad Debt Expense from the Commission's other adjustments to PREPA's net revenue requirement

	<b>Adjustments from Commission Attachment 2, Line 25</b>	<b>Amount</b>
4	Debt Service Coverage Ratio Margin	\$ 125,756
5	Adjust Amount of Ratepayer Contributions for FY2017 Capital Expenditure Funding	\$ (183,096)
6	Reflect Reclassification of Certain PREPA Proposed FY2017 Capital Expenditures to Generation Maintenance Expense	\$ 16,000
7	Remove Double-Count of Special Customer Subsidies and Revenue at Current Rates	\$ (37,041)
8	Adjust Fuel Expense Forecast	\$ 461,305
9	Adjust Operating and Maintenance Expense for Synapse Recommended Levels for Safe and Reliability Operation of the Electric Utility	\$ 19,414
10	Remove Budgeted FY2017 Expense Amount for Fines and Penalties	\$ -
11	Puerto Rico Electric Power Authority	\$ 1,711
12	<b>Total Commission Advisor Adjustments on Net Revenue Requirement</b>	<b>\$ 404,049</b>

Note A: The impact on Bad Debt Expense has been recalculated to reflect the impact of the Commission's decisions on other adjustments





Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

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Reconnection Fee Revenue - Impact on PREPA's FY2017 Operating Expenses if the Reconnection Fee Increase is Held to the Cost of Reconnection

Line No.	Description	Totals (A)	Increase (B)	Reference
<b>I. Annual Revenue from Reconnection Fee as Estimated by PREPA</b>				
	Annual revenue for reconnection fee:			
1	at current tariff	\$ 5,100,000		
2	at cost based rates	\$ 10,646,760	\$ 5,546,760	CEPR-RS-05-21(d)
3	at PREPA proposed rates (which would be beyond PREPA's cost)	\$ 15,300,000	\$ 10,200,000	CEPR-RS-05-21(d)
4	Ratio (Revenue increase at above cost rates vs revenue increase at cost-based rates)		0.5438	Line 2 / Line 3
<b>II. Adjustment to Remove Above Cost Portion</b>				
5	Above cost portion		0.4562	1 - cost ratio (on line 4)
6	Increasing Disconnection Charges - reflected for FY2017 by PREPA		\$ 3,750,000	CEPR-RS-01-14 A PREPA summary of Customer Service Performance Improvements Also see Table below
7	Removal of above-cost portion - applied to \$3.75 million assumed by PREPA PREPA reflected the \$3.75 million as a reduction to expense - removal of the above-cost portion thus increases PREPA's proposed expenses		\$ 1,710,750	Line 5 x Line 6

III. Adjust FY2017 Expenses in some manner that PREPA Reflected the "Customer Service Performance Improvements" In Its Revenue Requirement Calculation

Component	Source for percentages	Percent (C)	Expense Adjustment (Dollars) (D)	Expense Adjustment (\$000) (E)
8 Generation Expenses	Smith-Dady Report page 34, Table 12 and PREPA's Rate Case Financial Model - see below	21.07%	\$ 374,119	\$ 374
9 Transmission Expenses		6.11%	\$ 104,592	\$ 105
10 Distribution Expenses		30.24%	\$ 517,356	\$ 517
11 Customer Billing Expenses		15.10%	\$ 259,614	\$ 260
12 Administrative and General Expenses		26.60%	\$ 455,069	\$ 455
13 Total Adjustment to Expenses		100.00%	\$ 1,710,750	\$ 1,711

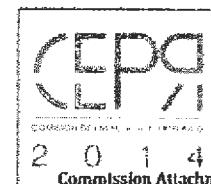
IV. Referenced Tables from Smith-Dady Report

Percentage of FY2014 O&M Expense by Category		To Col. C Above
Description	FY2014	Ratio
Generation Expenses	\$ 160,541,902	21.07%
Transmission Expenses	\$ 44,882,530	6.11%
Distribution Expenses	\$ 222,007,607	30.24%
Customer Billing Expenses	\$ 111,405,645	15.10%
Administrative and General Expenses	\$ 195,279,419	26.60%
Total	\$ 734,117,183	100.00%
Source: PREPA's Rate Case Financial Model		
Smith-Dady Report page 34, Table 12		

Summary of Non-Fuel Performance Improvements

Description	Amount
<b>Customer Service</b>	
Increasing Disconnection Costs	\$ 1,750,000
Theft Recoveries and Reduced T&D Loss	\$ 20,000,000
Total Customer Service Related Savings	\$ 23,750,000
<b>Procurement</b>	
Fleet and Shops	\$ 17,500,000
Procurement and Inventory	\$ 37,500,000
Total Procurement Related Savings	\$ 55,000,000
<b>Other (Net)</b>	
Medical Benefit Savings	\$ 14,000,000
Headcount Reduction	\$ 10,000,000
Total Other (Net) Related Savings	\$ 24,000,000
<b>Total Non-Labor Performance Improvements</b>	<b>\$ 102,750,000</b>
Smith-Dady Report page 33, Table 11	

To Line



Puerto Rico Electric Power Authority  
Commission Adjustments to FY2017 Revenue Requirements

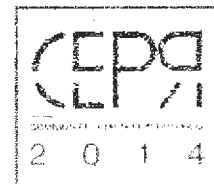
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Reclassification of Energy Commission Assessment and Direct Debit Credit and PREPA Claimed Subsidies Error  
(Thousands of Dollars)

Line No.	Description	Total Amount (A)	Subsidies (B)	Operating Expenses (C)	Footnote Reference	Attachment 2 Reference
<b>I. Energy Commission Assessment</b>						
1	Operating Expenses	\$ (5,800)		\$ (5,800)	Note A	Att 2, L10
2	Subsidies	\$ 5,800	\$ 5,800		Note A	Att 2, L14
3	Net Adjustment	\$ -			Note A	
<b>II. Direct Debit Credit</b>						
4	Operating Expenses	\$ 129		\$ 129	Note B	Att 2, L7
5	Subsidies	\$ (129)	\$ (129)		Note B	Att 2, L17
6	Net Adjustment	\$ -			Note B	
<b>III. PREPA Claimed CLT and Subsidies Pass-Through Error</b>						
7	PREPA Claimed error from Subsidies	\$ -	\$ -		Note C	Att 2, L17
<b>IV. Net Adjustment</b>						
8	Net Adjustment affecting PREPA's Revenue Requirement	\$ -	\$ 5,671	\$ (5,671)		

Notes and Source

- [A] The Commission has determined that the Energy Commission Assessment will be recovered through the Subsidies Rider (as required by statute).
- [B] The Commission has determined that the Direct Debit Credit is an Operating Expense, not a component of the Subsidies.
- [C] PREPA Brief 170 claimed that there was a \$643k error. The Commission was not able to verify this and has not accepted this adjustment. The Commission has reconciled the Subsidies amounts as shown on Attachment 4. The Subsidies amounts, as adjusted by the Commission, reconcile to the amount reflected in the revenue requirement without any need for PREPA's claimed correction.



## Attachment 4: Contribution in Lieu of Taxes and Subsidies Adjustments

Puerto Rico Electric Power Authority

Commission Attachment 4

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### Contribution in Lieu of Taxes and Subsidies Adjustments

#### Summary of PREPA As-Filed Contribution in Lieu of Taxes and Subsidies

Line No.	Description	As filed by PREPA Amount	Per PREPA Filing (in \$000)
1	Contribution to Municipalities	\$ 51,783,821	\$ 51,784
2	Public Lighting	\$ 93,240,901	\$ 93,241
3	Special Customer Subsidies	\$ 75,071,020	\$ 75,071
4	Total	<u>\$ 220,095,742</u> [A]	<u>\$ 220,096</u> [A]
5	CILT Subsidy Recovery in FCA and PPCA	\$ 182,411,548	
6	CILT Subsidy Recovery Required in Base Rates	\$ 37,685,194	
7	Total	<u>\$ 220,096,742</u> [A]	

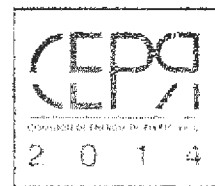
#### Notes and Source

Source: PREPA Schedules A-1 REV and L-2 (L 000002) FY2017

PREPA response to CEPR-RS-01-11

PREPA Ex. 4.0 at page 11

[A] See Commission Attachment 1, column A, line 18



Puerto Rico Electric Power Authority  
Contribution in Lieu of Taxes and Subsidies Adjustments

Commission Attachment 4  
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Line No.	Subsidies/Credits	PREPA FY 2017 Estimate (A)	Amount in "Subsidy Rider" (B)	Reflected As An Operating Expense (C)	Removed PREPA's Double Count (D)
1	Life-Preserving Equipment	\$ 2,547,894	\$ 2,547,894		
2	General Agricultural Service	\$ 524,933			\$ 524,933
3	Analog Rate	\$ 5,521,495	\$ 5,521,495		
4	Low-Income Tariffs				
5	LRS Tariff	\$ 15,416,766			\$ 15,416,766
6	RH3 Tariff	\$ 1,022,085			\$ 1,022,085
7	Hotel 11% Discount	\$ 5,463,401	\$ 5,463,401		
8	Rural Aqueducts on GRS	\$ 4,220	\$ 4,220		
9	Irrigation District Deficit	\$ 4,152,000	\$ 4,152,000		
10	Residential Fuel Subsidy	\$ 18,630,971	\$ 18,630,971		
11	Condo Common Areas	\$ 1,321,289	\$ 1,321,289		
12	Direct Debit Credit	\$ 129,428		\$ 129,428	
13	Downtown 10% Subsidy	\$ 1,775	\$ 1,775		
14	RFR Tariff	\$ 20,076,641			\$ 20,076,641
15	Act 73 Income Tax Credit	\$ 258,121	\$ 258,121		
16	Other Subsidy Categories				
17	Public Lighting	\$ 93,241,901	\$ 93,241,901		
18	Energy Commission	\$ 5,800,000	\$ 5,800,000		
19	Subtotal - Subsidies	\$ 174,112,921	\$ 136,943,067		
20	Unquantified PREPA Claimed Subsidies				
21	Load-Retention Rider	thd			
22	Contribution in Lieu of Taxes	\$ 51,783,821	\$ 51,783,821		
23	TOTALS CILT and Subsidies	\$ 225,896,742	\$ 188,726,888	\$ 129,428	\$ 37,040,425
24					
25	Categories:				
26	Public Lighting	\$ 93,241,901 [1]	\$ 93,241,901	\$ -	\$ -
27	Contribution in Lieu of Taxes	\$ 51,783,821 [1]	\$ 51,783,821	\$ -	\$ -
28	Special Customer Subsidies	\$ 75,071,019 [1]	\$ 37,901,166	\$ 129,428	\$ 37,040,425
29	SUBTOTAL	\$ 220,096,741 [1]	\$ 182,926,888	\$ 129,428	\$ 37,040,425
30	Energy Commission	\$ 5,800,000	\$ 5,800,000	\$ -	\$ -
31	TOTALS	\$ 225,896,741	\$ 188,726,888 [2]	\$ 129,428	\$ 37,040,425
32					
33	DIFFERENCE, COMMISSION ADJUSTED VS. PREPA FILED		\$ (37,169,853)	\$ 37,169,853	
			Col.B - Col.A Total	Cols. C & D Totals	

Notes and Source

Col.A: Commission Advisor Paul Chernick Report, page 87, Table 9, Summary of Characteristics of PREPA-Claimed Subsidies

[1] Also see Commission Attachment 4, page 1, for PREPA's as-filed amounts

Col.B: Commission Adjusted Subsidies

[2] Compare line 33 column B Total with

Commission Adjusted Subsidies amount per Attachment 1, column D

\$ 188,725,572

Difference (rounding)

1,316

Percent difference

0.0007%

Col.C: Reclassified expense, see Commission Attachment 3, page 10

Col.D: PREPA Double-Count removed, see Commission Attachment 3, page 4